WEST Search History

Hide Items | Restore | Clear | Cancel

DATE: Thursday, March 16, 2006

Hide?	Set Name	Query	Hit Count
	DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=ADJ		
☐	L7	L6	11
	DB=PGPB,USPT,EPAB,JPAB,DWPI; THES=ASSIGNEE; PLUR=YES; OP=ADJ		
☐	L6	L5 and C adj terminal	61
☐	L5	Glycoprotein and L3	142
☐	L4	Site III and L3	3
☐	L3	fusion and L1	142
☐	L2	L1 and site adj III	7
☐	L1	lyssavirus and glycoprotein	202

END OF SEARCH HISTORY

- Search History will be lost after eight hours of inactivity.
- To combine searches use # before search number, e.g., #2 AND #6.
- Search numbers may not be continuous; all searches are represented.
- Click on query # to add to strategy

Search	Most Recent Queries	Time	Result
#50	Search **lyssavirus and Site III and fusion protein**	10:38:42	8
#47	Search **Site III antigen and rabies**	10:33:52	17
#45	Search **rabies neutralization and site III**	10:29:59	8
#44	Search **rabies vaccine and site III**	10:29:36	4
#43	Search **rabies vaccine**	10:29:29	3373
#40	Search **Tuffereau C 1998**	10:24:20	3
#39	Search **Tuffereau C**	10:24:14	27
#37	Search **Site III and rabies and fusion**	10:23:25	8
#36	Search **Site III and rabies**	10:22:58	26
#35	Search **Sit III and rabies**	10:22:49	0
#31	Search **flamand A and rabies**	10:19:48	54
#30	Search **Flamand A 1991**	10:17:39	5
#29	Search **benmansore A 1991**	10:17:13	1
#27	Search **mebatsion T 1995**	10:10:45	2
#24	Search **desmezieres E 1999**	10:07:50	3
#23	Search **lebloiis H 1991 and rabies virus**	10:06:49	26
#22	Search **lebloiis H 1991**	10:06:38	94597
#19	Search **jallet C 1999**	09:59:35	3
#17	Search **Corinne J 1999 and lyssavirus**	09:59:22	0
#18	Search **Corinne J 1999**	09:59:19	1
#16	Search **Corinne J 1999 and lyssavirus glycoprotein**	09:58:55	0
#2	Search **Renmansour A 1991 and rabies and glycoprotein**	09:57:58	30
#6	Search **"Miller TJ"[Author]**	09:55:15	84
#1	Search **Renmansour A 1991 and rabies**	09:46:57	268

Classification Search

Database to Search: US Pre-Grant Publication Full-Text Database; US Patents Full-Text Database; US OCR Full-Text Database; EPO Abstracts Database; JPO Abstracts Database; Derwent World Patents Index; IBM Technical Disclosure Bulletins

Classification System: International Patent Classification (IPC)

Classification(s)/ Term(s): L6 — Search Index to Classification — Search MoC

Display: 10 **Documents in** Display Format: - **Starting With #:** 1

Generate: ○ Hit List ◉ Hit Count ○ Side by Side ○ Image

Search | Clear | Interrupt

Search History

DATE: Thursday, March 16, 2006 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=PGPB,USPT,EPAB,JPAB,DWPI; THES=ASSIGNEE; PLUR=YES; OP=ADJ			
L10	424/204.1.CCL	0	L10
L9	(424/204.1)[IPC]	0	L9
L8	(424/204.1)![IPC]	0	L8
DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=ADJ			
L7	L6	11	L7
DB=PGPB,USPT,EPAB,JPAB,DWPI; THES=ASSIGNEE; PLUR=YES; OP=ADJ			
L6	L5 and C adj terminal	61	L6
L5	Glycoprotein and L3	142	L5
L4	Site III and L3	3	L4
L3	fusion and L1	142	L3
L2	L1 and site adj III	7	L2
L1	lyssavirus and glycoprotein	202	L1

END OF SEARCH HISTORY

Li, Bao-Qun

From: Scanning Customer Support
Sent: Friday, March 17, 2006 6:30 PM
To: Li, Bao-Qun
Cc: Chaudhari, Siddharth (RTIS); Scanning Customer Support
Subject: RE: Problem Image - ASN: 10608538- closed

Application has been retrieved from boxing and We have checked all documents located with in. Missing pages of NPL 1 page were not located with in. Please follow your business process to obtain any missing document.

Thank You,
EM1
Customer Support Team

-----Original Message-----
From: Scanning Customer Support
Sent: Thursday, March 16, 2006 3:27 PM
To: Li, Bao-Qun
Cc: Scanning Customer Support
Subject: RE: Problem Image - ASN: 10608538-Ack1

We have received your request and are taking the necessary steps to investigate this issue. Notification of our results will occur within five business days.

Thank you,

Customer Support Team
MC

-----Original Message-----
From: Li, Bao-Qun
Sent: Thursday, March 16, 2006 1:06 PM
To: Scanning Customer Support
Subject: Problem Image - ASN: 10608538

Application Serial Number (ASN): 10608538
Status: 7
Document Type: NPL
Number of Pages: 1
Date: 05/11/2004
This referecne should contain the pages from 579-732. However, only one page has been c]scanned . Please check if other missing pages are in the file. If so, plase scan it into the eDAN.

- Search History will be lost after eight hours of inactivity.
- To combine searches use # before search number, e.g., #2 AND #6.
- Search numbers may not be continuous; all searches are represented.
- Click on query # to add to strategy

Search	Most Recent Queries	Time	Result
#47	Search **Site III antigen and rabies**	10:33:52	17
#45	Search **rabies neutralization and site III**	10:29:59	8
#44	Search **rabies vaccine and site III**	10:29:36	4
#43	Search **rabies vaccine**	10:29:29	3373
#40	Search **Tuffereau C 1998**	10:24:20	3
#39	Search **Tuffereau C**	10:24:14	27
#37	Search **Site III and rabies and fusion**	10:23:25	8
#36	Search **Site III and rabies**	10:22:58	26
#35	Search **Sit III and rabies**	10:22:49	0
#31	Search **flamand A and rabies**	10:19:48	54
#30	Search **Flamand A 1991**	10:17:39	5
#29	Search **benmansore A 1991**	10:17:13	1
#27	Search **mebatsion T 1995**	10:10:45	2
#24	Search **desmezieres E 1999**	10:07:50	3
#23	Search **lebloiis H 1991 and rabies virus**	10:06:49	26
#22	Search **lebloiis H 1991**	10:06:38	94597
#19	Search **jallet C 1999**	09:59:35	3
#17	Search **Corinne J 1999 and lyssavirus**	09:59:22	0
#18	Search **Corinne J 1999**	09:59:19	1
#16	Search **Corinne J 1999 and lyssavirus glycoprotein**	09:58:55	0
#2	Search **Renmansour A 1991 and rabies and glycoprotein**	09:57:58	30
#6	Search **"Miller TJ"[Author]**	09:55:15	84
#1	Search **Renmansour A 1991 and rabies**	09:46:57	268

L17 ANSWER 1 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:178601 CAPLUS
TITLE: A simple immuno-capture ELISA to estimate **rabies** viral **glycoprotein** antigen in vaccine manufacture
AUTHOR(S): Nagarajan, T.; Reddy, G. S.; Mohana Subramanian, B.; Rajalakshmi, S.; Thiagarajan, D.; Tordo, N.; Jallet, C.; Srinivasan, V. A.
CORPORATE SOURCE: Rakshapuram, Indian Immunologicals Limited, Gachibowli (PO), Hyderabad, 500019, India
SOURCE: Biologicals (2006), 34(1), 21-27
CODEN: BILSEC; ISSN: 1045-1056
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

L17 ANSWER 2 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:683093 CAPLUS
DOCUMENT NUMBER: 143:210176
TITLE: The human antibody repertoire specific for **rabies** virus **glycoprotein** as selected from immune libraries
AUTHOR(S): Kramer, R. Arjen; Marissen, Wilfred E.; Goudsmit, Jaap; Visser, Therese J.; Clijsters-Van der Horst, Marieke; Bakker, Arjen Q.; de Jong, Maureen; Jongeneelen, Mandy; Thijsse, Sandra; Backus, Harold H. J.; Rice, Amy B.; Weldon, William C.; Rupprecht, Charles E.; Dietzschold, Bernhard; Bakker, Alexander B. H.; de Kruif, John
CORPORATE SOURCE: Crucell Holland B.V., Leiden, Neth.
SOURCE: European Journal of Immunology (2005), 35(7), 2131-2145
CODEN: EJIMAF; ISSN: 0014-2980
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 3 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:617037 CAPLUS
DOCUMENT NUMBER: 143:131477
TITLE: Novel human monoclonal antibody combination effectively neutralizing natural **rabies** virus variants and individual in vitro escape mutants
AUTHOR(S): Bakker, Alexander B. H.; Marissen, Wilfred E.; Kramer, R. Arjen; Rice, Amy B.; Weldon, William C.; Niezgoda, Michael; Hanlon, Cathleen A.; Thijsse, Sandra; Backus, Harold H. J.; de Kruif, John; Dietzschold, Bernhard; Rupprecht, Charles E.; Goudsmit, Jaap
CORPORATE SOURCE: Crucell Holland BV, Leiden, Neth.
SOURCE: Journal of Virology (2005), 79(14), 9062-9068
CODEN: JOVIAM; ISSN: 0022-538X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 4 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:667137 CAPLUS
DOCUMENT NUMBER: 139:321839
TITLE: Mapping of the low ph-sensitive conformational epitope of **rabies** virus **glycoprotein** recognized by a monoclonal antibody #1-30-44
AUTHOR(S): Kankanamge, Pushpa Jenette; Irie, Takashi; Mannen, Kazuaki; Tochikura, Tadafumi S.; Kawai, Akihiko
CORPORATE SOURCE: Department of Molecular Microbiology, Graduate School

of Pharmaceutical Science, Kyoto University, Kyoto, 606-8501, Japan
SOURCE: Microbiology and Immunology (2003), 47(7), 507-519
CODEN: MIIMDV; ISSN: 0385-5600
PUBLISHER: Center for Academic Publications Japan
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 5 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:756739 CAPLUS
DOCUMENT NUMBER: 133:320992
TITLE: Fusion proteins of lyssavirus antigens for use in **rabies** vaccines and their preparation
INVENTOR(S): Jacob, Yves; Perrin, Pierre; Tordo, Noel; Bahloul, Chokri
PATENT ASSIGNEE(S): Institut Pasteur, Fr.
SOURCE: PCT Int. Appl., 89 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000063242	A1	20001026	WO 2000-IB564	20000417
W: BR, CA, MX, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6673601	B1	20040106	US 2000-549519	20000414
CA 2370278	AA	20001026	CA 2000-2370278	20000417
EP 1171454	A1	20020116	EP 2000-917245	20000417
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
BR 2000009746	A	20020122	BR 2000-9746	20000417
US 2005064389	A1	20050324	US 2003-608538	20030630

PRIORITY APPLN. INFO.: US 1999-129501P P 19990415
US 2000-549519 A1 20000414
WO 2000-IB564 W 20000417
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 6 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:753635 CAPLUS
DOCUMENT NUMBER: 134:357460
TITLE: Chimeric lyssavirus **glycoprotein**: New vector for multivalent vaccines
AUTHOR(S): Desmezieres, E.; Jacob, Y.; Saron, M. -F.; Delpeyroux, F.; Tordo, N.; Perrin, P.
CORPORATE SOURCE: Lyssavirus Laboratory, Pasteur Institute, Paris, 75724/15, Fr.
SOURCE: Animal Cell Technology: Products from Cells, Cells as Products, Proceedings of the ESACT Meeting, 16th, Lugano, Switzerland, Apr. 25-29, 1999 (1999), Meeting Date 1999, 447-453. Editor(s): Bernard, Alain. Kluwer Academic Publishers: Dordrecht, Neth.
CODEN: 69ANWU
DOCUMENT TYPE: Conference
LANGUAGE: English
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 7 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:727176 CAPLUS
DOCUMENT NUMBER: 134:264708
TITLE: DNA-based immunization against **rabies** and **rabies**-related viruses: Towards multivalent

vaccines
AUTHOR(S): Perrin, P.; Jacob, Y.; Desmezieres, E.; Tordo, N.
CORPORATE SOURCE: Lyssavirus Laboratory, Institut Pasteur, Paris, Fr.
SOURCE: Developments in Biologicals (2000), 104(Development and Clinical Progress of DNA Vaccines), 151-157
CODEN: DBEIAI; ISSN: 1424-6074
PUBLISHER: S. Karger AG
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 8 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:384387 CAPLUS
DOCUMENT NUMBER: 133:29603
TITLE: Stable, attenuated **rabies** virus mutants as live vaccines
INVENTOR(S): Mebatsion, Teshome; Conzelmann, Karl Klaus
PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.
SOURCE: PCT Int. Appl., 15 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000032755	A1	20000608	WO 1999-EP9101	19991119
W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2352231	AA	20000608	CA 1999-2352231	19991119
BR 9915703	A	20010814	BR 1999-15703	19991119
EP 1131414	A1	20010912	EP 1999-973064	19991119
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
TR 200101445	T2	20011022	TR 2001-200101445	19991119
US 6719981	B1	20040413	US 2001-856653	20010706

PRIORITY APPLN. INFO.: EP 1998-204001 A 19981127
WO 1999-EP9101 W 19991119
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 9 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:344866 CAPLUS
DOCUMENT NUMBER: 134:159961
TITLE: Sequencing and position analysis of **glycoprotein** gene of four Chinese **rabies** viruses
AUTHOR(S): Tang, Qing; Orciari, Lillian A.; Rupprechti, Charles E.; Zhao, Xiuqin; Li, Zhigang; Yang, Weisong
CORPORATE SOURCE: Epidemiology and Microbiology Institute, National Academy of Preventive Medicine, Beijing, 102206, Peop. Rep. China
SOURCE: Zhongguo Bingduxue (2000), 15(1), 22-33
CODEN: ZBINER; ISSN: 1003-5125
PUBLISHER: Kexue Chubanshe
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

L17 ANSWER 10 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:594440 CAPLUS
DOCUMENT NUMBER: 131:298430
TITLE: Lyssavirus **glycoproteins** expressing

immunologically potent foreign B cell and cytotoxic T lymphocyte epitopes as prototypes for multivalent vaccines
AUTHOR(S): Desmezieres, Emmanuel; Jacob, Yves; Saron, Marie-Francoise; Delpeyroux, Francis; Tordo, Noel; Perrin, Pierre
CORPORATE SOURCE: Laboratoire des Lyssavirus, Paris, 75724, Fr.
SOURCE: Journal of General Virology (1999), 80(9), 2343-2351
CODEN: JGVIAY; ISSN: 0022-1317
PUBLISHER: Society for General Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 11 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:43966 CAPLUS
DOCUMENT NUMBER: 130:221366
TITLE: Low-affinity nerve-growth factor receptor (p75NTR) can serve as a receptor for **rabies** virus
AUTHOR(S): Tuffereau, Christine; Benejean, Jacqueline; Blondel, Danielle; Kieffer, Brigitte; Flamand, Anne
CORPORATE SOURCE: CNRS, Laboratoire de Genetique des Virus, Gif sur Yvette, 91198, Fr.
SOURCE: EMBO Journal (1998), 17(24), 7250-7259
CODEN: EMJODG; ISSN: 0261-4189
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 69 THERE ARE 69 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 12 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:810734 CAPLUS
DOCUMENT NUMBER: 130:165263
TITLE: Pathogenicity of different **rabies** virus variants inversely correlates with apoptosis and **rabies** virus **glycoprotein** expression in infected primary neuron cultures
AUTHOR(S): Morimoto, Kinjiro; Hooper, D. Craig; Spitsin, Sergei; Koprowski, Hilary; Dietzschold, Bernhard
CORPORATE SOURCE: Center for Neurovirology, Department of Microbiology and Immunology, Thomas Jefferson University, Philadelphia, PA, 19107-6799, USA
SOURCE: Journal of Virology (1999), 73(1), 510-518
CODEN: JOVIAM; ISSN: 0022-538X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 13 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:810701 CAPLUS
DOCUMENT NUMBER: 130:152276
TITLE: Chimeric lyssavirus **glycoproteins** with increased immunological potential
AUTHOR(S): Jallet, Corinne; Jacob, Yves; Bahloul, Chokri; Drings, Astrid; Desmezieres, Emmanuel; Tordo, Noel; Perrin, Pierre
CORPORATE SOURCE: Laboratoire des Lyssavirus, Institut Pasteur, Paris, 75724, Fr.
SOURCE: Journal of Virology (1999), 73(1), 225-233
CODEN: JOVIAM; ISSN: 0022-538X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 14 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:18477 CAPLUS
DOCUMENT NUMBER: 128:100528
TITLE: An avirulent mutant of **rabies** virus is unable to infect motoneurons in vivo and in vitro
AUTHOR(S): Coulon, Patrice; Ternaux, Jean-Pierre; Flamand, Anne; Tuffereau, Christine
CORPORATE SOURCE: Laboratoire de Genetique des Virus, Centre National de la Recherche Scientifique, Gif sur Yvette, 91198, Fr.
SOURCE: Journal of Virology (1998), 72(1), 273-278
CODEN: JOVIAM; ISSN: 0022-538X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

L17 ANSWER 15 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:373551 CAPLUS
DOCUMENT NUMBER: 123:250825
TITLE: Mokola virus **glycoprotein** and chimeric proteins can replace **rabies** virus **glycoprotein** in the rescue of infectious defective **rabies** virus particles
AUTHOR(S): Mebatsion, Teshome; Schnell, Matthias J.; Conzelmann, Karl-Klaus
CORPORATE SOURCE: Federal Res. Cent. Virus Diseases Animals, Tuebingen, D-72076, Germany
SOURCE: Journal of Virology (1995), 69(3), 1444-51
CODEN: JOVIAM; ISSN: 0022-538X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

L17 ANSWER 16 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:207750 CAPLUS
DOCUMENT NUMBER: 118:207750
TITLE: Rapid sequence evolution of street **rabies** **glycoprotein** is related to the highly heterogeneous nature of the viral population
AUTHOR(S): Benmansour, A.; Brahimi, M.; Tuffereau, C.; Coulon, P.; Lafay, F.; Flamand, A.
CORPORATE SOURCE: Serv. Rage, Inst. Pasteur Algerie, Algiers, Algeria
SOURCE: Virology (1992), 187(1), 33-45
CODEN: VIRLAX; ISSN: 0042-6822
DOCUMENT TYPE: Journal
LANGUAGE: English

L17 ANSWER 17 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1991:512327 CAPLUS
DOCUMENT NUMBER: 115:112327
TITLE: Antigenicity of **rabies** virus **glycoprotein**
AUTHOR(S): Benmansour, A.; Leblois, H.; Coulon, P.; Tuffereau, C.; Gaudin, Y.; Flamand, A.; Lafay, F.
CORPORATE SOURCE: Lab. Genet. Virus, Cent. Natl. Rech. Sci., Gif-sur-Yvette, 91198, Fr.
SOURCE: Journal of Virology (1991), 65(8), 4198-203
CODEN: JOVIAM; ISSN: 0022-538X
DOCUMENT TYPE: Journal
LANGUAGE: English

L17 ANSWER 18 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1986:440596 CAPLUS
DOCUMENT NUMBER: 105:40596
TITLE: Avirulent mutants of **rabies** virus: change in the **site III** of the **glycoprotein**
AUTHOR(S): Diallo, A.
CORPORATE SOURCE: Inst. Elevage Med. Vet. Pays Tropicaux,

Maisons-Alfort, 94704, Fr.
SOURCE: Annales de Recherches Veterinaires (1986), 17(1), 3-6
CODEN: ARCVBP; ISSN: 0003-4193
DOCUMENT TYPE: Journal; General Review
LANGUAGE: French

L17 ANSWER 19 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1986:127732 CAPLUS
DOCUMENT NUMBER: 104:127732
TITLE: **Rabies**: effect on virulence of mutations at the **glycoprotein site III**
AUTHOR(S): Flamand, A.; Coulon, P.; Diallo, A.; Lafay, F.; Seif, I.
CORPORATE SOURCE: Lab. Genet. Virus, CNRS, Gif-sur-Yvette, 91190, Fr.
SOURCE: Annales de l'Institut Pasteur/Virology (1985), 136(4), 363-72
CODEN: AIPVEU; ISSN: 0769-2617
DOCUMENT TYPE: Journal; General Review
LANGUAGE: French

L17 ANSWER 20 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1985:143960 CAPLUS
DOCUMENT NUMBER: 102:143960
TITLE: **Rabies** virulence: effect on pathogenicity and sequence characterization of **rabies** virus mutations affecting antigenic **site III** of the **glycoprotein**
AUTHOR(S): Seif, Isabelle; Coulon, Patrice; Rollin, Pierre Etienne; Flamand, Anne
CORPORATE SOURCE: Lab. Genet. Virus, Cent. Natl. Rech. Sci., Gif sur Yvette, 91190, Fr.
SOURCE: Journal of Virology (1985), 53(3), 926-34
CODEN: JOVIAM; ISSN: 0022-538X
DOCUMENT TYPE: Journal
LANGUAGE: English

L17 ANSWER 21 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1984:605008 CAPLUS
DOCUMENT NUMBER: 101:205008
TITLE: Comparative nucleotide sequence analysis of the **glycoprotein** gene of antigenically altered **rabies** viruses
AUTHOR(S): Wunner, W. H.; Smith, C. L.; Lafon, M.; Ideler, J.; Wiktor, T. J.
CORPORATE SOURCE: Wistar Inst. Anat. Biol., Philadelphia, PA, 19104, USA
SOURCE: Nonsegmented Negat. Strand Viruses, [Proc. Symp. Mol. Biol. Negat. Strand Viruses] (1984), Meeting Date 1983, 279-84. Editor(s): Bishop, David H. L.; Compans, Richard W. Academic: Orlando, Fla.
CODEN: 52EHAI
DOCUMENT TYPE: Conference
LANGUAGE: English

L17 ANSWER 22 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2005:436097 BIOSIS
DOCUMENT NUMBER: PREV200510220603
TITLE: The human antibody repertoire specific for **rabies** virus **glycoprotein** as selected from immune libraries.
AUTHOR(S): Kramer, R. Arjen; Marissen, Wilfred E.; Goudsmit, Jaap; Visser, Therese J.; der Horst, Marieke Clijers-Van; Bakker, Arjen Q.; de Jong, Maureen; Jongeneelen, Mandy; Thijsse, Sandra; Backus, Harold H. J.; Rice, Amy B.; Weldon, William C.; Rupprecht, Charles E.; Dietzschold, Bernhard; Bakker, Alexander B. H.; de Kruif, John [Reprint Author]
CORPORATE SOURCE: Crucell Holland BV, POB 2048, NL-2301 CA Leiden, Netherlands
j.dekruif@crucell.com

SOURCE: European Journal of Immunology, (JUL 2005) Vol. 35, No. 7, pp. 2131-2145.
CODEN: EJIMAF. ISSN: 0014-2980.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 26 Oct 2005
Last Updated on STN: 26 Oct 2005

L17 ANSWER 23 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2005:399411 BIOSIS
DOCUMENT NUMBER: PREV200510190484
TITLE: Novel human monoclonal antibody combination effectively neutralizing natural **rabies** virus variants and individual in vitro escape mutants.
AUTHOR(S): Bakker, Alexander B. H.; Marissen, Wilfred E.; Kramer, R. Arjen; Rice, Amy B.; Weldon, William C.; Niezgoda, Michael; Hanlon, Cathleen A.; Thijsse, Sandra; Backus, Harold H. J.; de Kruif, John; Dietzschold, Bernhard; Rupprecht, Charles E.; Goudsmit, Jaap [Reprint Author]
CORPORATE SOURCE: Crucell Holland BV, ARchimedesweg 4,POB 2048, NL-2301 CA Leiden, Netherlands
j.goudsmit@crucell.com
SOURCE: Journal of Virology, (JUL 2005) Vol. 79, No. 14, pp. 9062-9068.
CODEN: JOVIAM. ISSN: 0022-538X.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 5 Oct 2005
Last Updated on STN: 5 Oct 2005

L17 ANSWER 24 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2004:239856 BIOSIS
DOCUMENT NUMBER: PREV200400241302
TITLE: Mapping of the low ph-sensitive conformational epitope of **rabies** virus **glycoprotein** recognized by a monoclonal antibody 1-30-44.
AUTHOR(S): Kankanamge, Pushpa Jenette; Irie, Takashi; Mannen, Kazuaki; Tochikura, Tadafumi S.; Kawai, Akihiko [Reprint Author]
CORPORATE SOURCE: Department of Molecular Microbiology, Graduate School of Pharmaceutical Sciences, Kyoto University, Sakyo-ku, Kyoto, Kyoto, 606-8501, Japan
akawai@pharm.kyoto-u.ac.jp
SOURCE: Microbiology and Immunology, (2003) Vol. 47, No. 7, pp. 507-519. print.
ISSN: 0385-5600 (ISSN print).
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 6 May 2004
Last Updated on STN: 6 May 2004

L17 ANSWER 25 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2000:179378 BIOSIS
DOCUMENT NUMBER: PREV200000179378
TITLE: Sequencing and position analysis of the **glycoprotein** gene of four Chinese **rabies** viruses.
AUTHOR(S): Tang Qing [Reprint author]; Yang Wei-song [Reprint author]; Orciari, Lillian A.
CORPORATE SOURCE: Epidemiology and Microbiology Institute of National Academy of Preventive Medicine, Beijing, 102206, China
SOURCE: Virologica Sinica, (March, 2000) Vol. 15, No. 1, pp. 22-33. print.
ISSN: 1003-5125.
DOCUMENT TYPE: Article
LANGUAGE: Chinese
ENTRY DATE: Entered STN: 11 May 2000

Last Updated on STN: 4 Jan 2002

L17 ANSWER 26 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1999:417211 BIOSIS
DOCUMENT NUMBER: PREV199900417211
TITLE: Lyssavirus **glycoproteins** expressing immunologically potent foreign B cell and cytotoxic T lymphocyte epitopes as prototypes for multivalent vaccines.
AUTHOR(S): Desmezieres, Emmanuel; Jacob, Yves; Saron, Marie-Francoise; Delpeyroux, Francis; Tordo, Noel; Perrin, Pierre [Reprint author]
CORPORATE SOURCE: Laboratoire des Lyssavirus, Institut Pasteur, 25, rue du Dr Roux, 75724, Paris Cedex 15, France
SOURCE: Journal of General Virology, (Sept., 1999) Vol. 80, No. 9, pp. 2343-2351. print.
CODEN: JGVIAY. ISSN: 0022-1317.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 18 Oct 1999
Last Updated on STN: 18 Oct 1999

L17 ANSWER 27 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1999:60333 BIOSIS
DOCUMENT NUMBER: PREV199900060333
TITLE: Pathogenicity of different **rabies** virus variants inversely correlates with apoptosis and **rabies** virus **glycoprotein** expression in infected primary neuron cultures.
AUTHOR(S): Morimoto, Kinjiro; Hopper, D. Craig; Spitsin, Sergei; Koprowski, Hilary; Dietzschold, Bernhard [Reprint author]
CORPORATE SOURCE: Cent. Neurovirol., Dep. Microbiol. Immunol., Thomas Jefferson Univ., 1020 Locust St., Philadelphia, PA 19107-6799, USA
SOURCE: Journal of Virology, (Jan., 1999) Vol. 73, No. 1, pp. 510-518. print.
CODEN: JOVIAM. ISSN: 0022-538X.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 16 Feb 1999
Last Updated on STN: 16 Feb 1999

L17 ANSWER 28 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1999:56699 BIOSIS
DOCUMENT NUMBER: PREV199900056699
TITLE: Low-affinity nerve-growth factor receptor (P75NTR) can serve as a receptor for **rabies** virus.
AUTHOR(S): Tuffereau, Christine [Reprint author]; Benejean, Jacqueline; Blondel, Danielle; Kieffer, Brigitte; Flamand, Ann
CORPORATE SOURCE: Lab. Genet. Virus, CNRS, 91198 Gif sur Yvette Cedex, France
SOURCE: EMBO (European Molecular Biology Organization) Journal, (Dec. 15, 1998) Vol. 17, No. 24, pp. 7250-7259. print.
CODEN: EMJODG. ISSN: 0261-4189.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 16 Feb 1999
Last Updated on STN: 16 Feb 1999

L17 ANSWER 29 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1999:55983 BIOSIS
DOCUMENT NUMBER: PREV199900055983
TITLE: Chimeric lyssavirus **glycoproteins** with increased immunological potential.
AUTHOR(S): Jallet, Corinne; Jacob, Yves; Bahloul, Chokri; Drings, Astrid; Desmezieres, Emmanuel; Tordo, Noel; Perrin, Pierre

[Reprint author]
CORPORATE SOURCE: Lab. Lyssavirus, Inst. Pasteur, 28 rue du Dr. Roux, 75724 Paris Cedex 15, France
SOURCE: Journal of Virology, (Jan., 1999) Vol. 73, No. 1, pp. 225-233. print.
CODEN: JOVIAM. ISSN: 0022-538X.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 16 Feb 1999
Last Updated on STN: 16 Feb 1999

L17 ANSWER 30 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1998:79305 BIOSIS
DOCUMENT NUMBER: PREV199800079305
TITLE: An avirulent mutant of **rabies** virus is unable to infect motoneurons in vivo and in vitro.
AUTHOR(S): Coulon, Patrice; Ternaux, Jean-Pierre; Flamand, Anne; Tuffereau, Christine [Reprint author]
CORPORATE SOURCE: Lab. Genetique Virus, Cent. Natl. Recherche Sci., Ave. Terrasse, 91198 Gif sur Yvette cedex, France
SOURCE: Journal of Virology, (Jan., 1998) Vol. 72, No. 1, pp. 273-278. print.
CODEN: JOVIAM. ISSN: 0022-538X.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 24 Feb 1998
Last Updated on STN: 24 Feb 1998

L17 ANSWER 31 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1995:165375 BIOSIS
DOCUMENT NUMBER: PREV199598179675
TITLE: Mokola virus **glycoprotein** and chimeric proteins can replace **rabies** virus **glycoprotein** in the rescue of infectious defective **rabies** virus particles.
AUTHOR(S): Mebatsion, Teshome; Schnell, Matthias J.; Conzelmann, Karl-Klaus [Reprint author]
CORPORATE SOURCE: Inst. Clinical Virol., Federal Res. Cent. Virus Diseases Animals, Paul-Ehrlich-Strasse 28, D-72076 Tuebingen, Germany
SOURCE: Journal of Virology, (1995) Vol. 69, No. 3, pp. 1444-1451.
CODEN: JOVIAM. ISSN: 0022-538X.
DOCUMENT TYPE: Article
LANGUAGE: English
OTHER SOURCE: Genbank-U17064
ENTRY DATE: Entered STN: 11 Apr 1995
Last Updated on STN: 11 Apr 1995

L17 ANSWER 32 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1992:218225 BIOSIS
DOCUMENT NUMBER: PREV199293118450; BA93:118450
TITLE: RAPID SEQUENCE EVOLUTION OF STREET **RABIES GLYCOPROTEIN** IS RELATED TO THE HIGHLY HETEROGENEOUS NATURE OF THE VIRAL POPULATION.
AUTHOR(S): BENMANSOUR A [Reprint author]; BRAHIMI M; TUFFEREAU C; COULON P; LAFAY F; FLAMAND A
CORPORATE SOURCE: LABORATOIRE DE VIROLOGIE ET IMUNOLOGIE MOLECULAIRES, INSTITUT NATIONAL DE LA RECHERCHE AGRONOMIQUE, F-78350 JOUY-EN-JOSAS CEDEX, FRANCE
SOURCE: Virology, (1992) Vol. 187, No. 1, pp. 33-45.
CODEN: VIRLAX. ISSN: 0042-6822.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
OTHER SOURCE: GENBANK-M81058; GENBANK-M81059; GENBANK-M81060
ENTRY DATE: Entered STN: 4 May 1992

Last Updated on STN: 1 Jun 1992

L17 ANSWER 33 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1991:431756 BIOSIS
DOCUMENT NUMBER: PREV199192087921; BA92:87921
TITLE: ANTIGENICITY OF **RABIES** VIRUS **GLYCOPROTEIN**
.
AUTHOR(S): BENMANSOUR A [Reprint author]; LEBLOIS H; COULON P; TUFFEREAU C; GAUDIN Y; FLAMAND A; LAFAY F
CORPORATE SOURCE: LABORATOIRE GENETIQUE VIRUS, CENTRE NATIONAL RECHERCHE SCIENTIFIQUE, 91198 GIF-SUR-YVETTE CEDEX, FR
SOURCE: Journal of Virology, (1991) Vol. 65, No. 8, pp. 4198-4203.
CODEN: JOVIAM. ISSN: 0022-538X.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 26 Sep 1991
Last Updated on STN: 26 Sep 1991

L17 ANSWER 34 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1989:204165 BIOSIS
DOCUMENT NUMBER: PREV198987105069; BA87:105069
TITLE: CHARACTERIZATION OF **RABIES** VIRUS ISOLATED FROM BOVINES IN PARANA BRAZIL BY USING MONOCLONAL ANTIBODIES.
AUTHOR(S): MONTANO J A [Reprint author]; POLACK G W
CORPORATE SOURCE: INST TECNOL PARANA, CAIXA POSTAL 357, 80001 CURITIBA, PR, BRAZIL
SOURCE: Arquivos de Biologia e Tecnologia (Curitiba), (1988) Vol. 31, No. 4, pp. 595-602.
CODEN: ABTTAP. ISSN: 0365-0979.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 20 Apr 1989
Last Updated on STN: 20 Apr 1989

L17 ANSWER 35 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1986:366010 BIOSIS
DOCUMENT NUMBER: PREV198631061284; BR31:61284
TITLE: AVIRULENT MUTANTS OF **RABIES** VIRUS CHANGE IN THE **SITE III** OF THE **GLYCOPROTEIN**.
AUTHOR(S): DIALLO A [Reprint author]
CORPORATE SOURCE: INST D'ELEVAGE MED VET PAYS TROPICAUX, 10 RUE PIERRE CURIE, 94704 MAISONS-ALFORT CEDEX, FR
SOURCE: Annales de Recherches Veterinaires, (1986) Vol. 17, No. 1, pp. 3-6.
CODEN: ARCVBP. ISSN: 0003-4193.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: FRENCH
ENTRY DATE: Entered STN: 12 Sep 1986
Last Updated on STN: 12 Sep 1986

L17 ANSWER 36 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1986:17341 BIOSIS
DOCUMENT NUMBER: PREV198630017341; BR30:17341
TITLE: A SYNTHETIC PEPTIDE CORRESPONDING TO ANTIGENIC **SITE III** OF **RABIES** VIRUS **GLYCOPROTEIN** AS A TOOL TO STUDY THE VIRULENCE OF THE CVS STRAIN.
AUTHOR(S): COULON P [Reprint author]; BLANOT D; VAN HEIJENOORT J; FLAMAND A
CORPORATE SOURCE: LAB GENETIQUE DE VIRUS, CNRS, 91190 GIF SUR YVETTE, FRANCE
SOURCE: Virus Research, (1985) No. SUPPL. 1, pp. 64.
Meeting Info.: 6TH INTERNATIONAL MEETING ON NEGATIVE STRAND VIRUSES, CAMBRIDGE, ENGLAND, SEPT. 15-20, 1985. VIRUS RES.

CODEN: VIREDF. ISSN: 0168-1702.
DOCUMENT TYPE: Conference; (Meeting)
FILE SEGMENT: BR
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 25 Apr 1986
Last Updated on STN: 25 Apr 1986

L17 ANSWER 37 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1985:316536 BIOSIS
DOCUMENT NUMBER: PREV198579096532; BA79:96532
TITLE: **RABIES** VIRULENCE EFFECT ON PATHOGENICITY AND SEQUENCE CHARACTERIZATION OF **RABIES** VIRUS MUTATIONS AFFECTING ANTIGENIC **SITE III** OF THE **GLYCOPROTEIN**.
AUTHOR(S): SEIF I [Reprint author]; COULON P; ROLLIN P E; FLAMAND A
CORPORATE SOURCE: LABORATOIRE GENETIQUE VIRUS, CENTRE NATIONAL RECHERCHE SCIENTIFIQUE, 91190 GIF YVETTE
SOURCE: Journal of Virology, (1985) Vol. 53, No. 3, pp. 926-934.
CODEN: JOVIAM. ISSN: 0022-538X.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH

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L17 ANSWER 10 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:594440 CAPLUS
DOCUMENT NUMBER: 131:298430
TITLE: Lyssavirus **glycoproteins** expressing immunologically potent foreign B cell and cytotoxic T lymphocyte epitopes as prototypes for multivalent vaccines
AUTHOR(S): Desmezieres, Emmanuel; Jacob, Yves; Saron, Marie-Francoise; Delpeyroux, Francis; Tordo, Noel; Perrin, Pierre
CORPORATE SOURCE: Laboratoire des Lyssavirus, Paris, 75724, Fr.
SOURCE: Journal of General Virology (1999), 80(9), 2343-2351
CODEN: JGVIAY; ISSN: 0022-1317
PUBLISHER: Society for General Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Truncated and chimeric lyssavirus **glycoprotein** (G) genes were used to carry and express non-lyssavirus B and T cell epitopes for DNA-based immunization of mice, with the aim of developing a multivalent vaccine prototype. Truncated G (GPVIII) was composed of the C-terminal half (aa 253-503) of the Pasteur **rabies** virus (PV: genotype 1) G containing antigenic **site III** and the transmembrane and cytoplasmic domains. The chimeric G (GEBL1-PV) was composed of the N-terminal half (aa 1-250) of the European bat lyssavirus 1 (genotype 5) G containing antigenic site II linked to GPVIII. Antigenic sites II and III are involved in the induction of virus-neutralizing antibodies. The B cell epitope was the C3 neutralization epitope of the poliovirus type 1 capsid VP1 protein. The T cell epitope was the H2d MHC I-restricted epitope of the nucleoprotein of lymphocytic choriomeningitis virus (LCMV) involved in the induction of both cytotoxic T cell (CTL) production and protection against LCMV. Truncated G carrying foreign epitopes induced weak antibody production against **rabies** and polio viruses and provided weak protection against LCMV. In contrast, the chimeric plasmid containing various combinations of B and CTL epitopes elicited simultaneous immunol. responses against both parental lyssaviruses and poliovirus and provided good protection against LCMV. The level of humoral and cellular immune responses depended on the order of the foreign epitopes inserted. Our results demonstrate that chimeric lyssavirus **glycoproteins** can be used not only to broaden the spectrum of protection against lyssaviruses, but also to express foreign B and CTL epitopes. The potential usefulness of chimeric lyssavirus **glycoproteins** for the development of multivalent vaccines against animal diseases and

zoonoses, including **rabies**, is discussed.
REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 11 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:43966 CAPLUS
DOCUMENT NUMBER: 130:221366
TITLE: Low-affinity nerve-growth factor receptor (p75NTR) can serve as a receptor for **rabies** virus
AUTHOR(S): Tuffereau, Christine; Benejean, Jacqueline; Blondel, Danielle; Kieffer, Brigitte; Flamand, Anne
CORPORATE SOURCE: CNRS, Laboratoire de Genetique des Virus, Gif sur Yvette, 91198, Fr.
SOURCE: EMBO Journal (1998), 17(24), 7250-7259
CODEN: EMJODG; ISSN: 0261-4189
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A random-primed cDNA expression library constructed from the mRNA of neuroblastoma cells (NG108) was used to clone a specific **rabies** virus (RV) receptor. A soluble form of the RV **glycoprotein** (Gs) was utilized as a ligand to detect pos. cells. The authors identified the murine low-affinity nerve-growth factor receptor, p75NTR. BSR cells stably expressing p75NTR were able to bind Gs and G-expressing lepidopteran cells. The ability of the RV **glycoprotein** to bind p75NTR was dependent on the presence of a lysine and arginine in positions 330 and 333 resp. of antigenic **site III**, which is known to control virus penetration into motor and sensory neurons of adult mice. P75NTR-expressing BSR cells were permissive for a non-adapted fox RV isolate (street virus) and NGF decreased this infection. In infected cells, p75NTR assocs. with the RV **glycoprotein** and could be precipitated with anti-G monoclonal antibodies.
REFERENCE COUNT: 69 THERE ARE 69 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 12 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:810734 CAPLUS
DOCUMENT NUMBER: 130:165263
TITLE: Pathogenicity of different **rabies** virus variants inversely correlates with apoptosis and **rabies** virus **glycoprotein** expression in infected primary neuron cultures
AUTHOR(S): Morimoto, Kinjiro; Hooper, D. Craig; Spitsin, Sergei; Koprowski, Hilary; Dietzschold, Bernhard
CORPORATE SOURCE: Center for Neurovirology, Department of Microbiology and Immunology, Thomas Jefferson University, Philadelphia, PA, 19107-6799, USA
SOURCE: Journal of Virology (1999), 73(1), 510-518
CODEN: JOVIAM; ISSN: 0022-538X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The mouse-adapted **rabies** virus strain CVS-24 has stable variants, CVS-B2c and CVS-N2c, which differ greatly in their pathogenicity for normal adult mice and in their ability to infect nonneuronal cells. The **glycoprotein** (G protein), which has previously been implicated in **rabies** virus pathogenicity, shows substantial structural differences between these variants. Although prior studies have identified antigenic **site III** of the G protein as the major pathogenicity determinant, CVS-B2c and CVS-N2c do not vary at this site. The possibility that pathogenicity is inversely related to G protein expression levels is suggested by the finding that CVS-B2c, the less pathogenic variant, expresses at least fourfold-higher levels of G protein than CVS-N2c in infected neurons. Although there is some difference between CVS-B2c- and CVS-N2c-infected neurons in G protein mRNA expression levels, the differential expression of G protein appears to be largely determined by post-translational mechanisms that affect G protein stability. Pulse-chase expts. indicated that the G protein of CVS-B2c is degraded more slowly than that of CVS-N2c. The accumulation of G protein

correlated with the induction of programmed cell death in CVS-B2c-infected neurons. The extent of apoptosis was considerably lower in CVS-N2c-infected neurons, where G protein expression was minimal. While nucleoprotein (N protein) expression levels were similar in neurons infected with either variant, the transport of N protein into neuronal processes was strongly inhibited in CVS-B2c-infected cells. Thus, downregulation of G protein expression in neuronal cells evidently contributes to **rabies** virus pathogenesis by preventing apoptosis and the apparently associated failure of the axonal transport of N protein.
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 13 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:810701 CAPLUS
DOCUMENT NUMBER: 130:152276
TITLE: Chimeric lyssavirus **glycoproteins** with increased immunological potential
AUTHOR(S): Jallet, Corinne; Jacob, Yves; Bahloul, Chokri; Drings, Astrid; Desmezieres, Emmanuel; Tordo, Noel; Perrin, Pierre
CORPORATE SOURCE: Laboratoire des Lyssavirus, Institut Pasteur, Paris, 75724, Fr.
SOURCE: Journal of Virology (1999), 73(1), 225-233
CODEN: JOVIAM; ISSN: 0022-538X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The **rabies** virus **glycoprotein** mol. (G) can be divided into two parts separated by a flexible hinge: the NH2 half (site II part) containing antigenic site II up to the linear region (amino acids [aa] 253 to 275 encompassing epitope VI [aa 264]) and the COOH half (**site III** part) containing antigenic **site III** and the transmembrane and cytoplasmic domains. The structural and immunol. roles of each part were investigated by cell transfection and mouse DNA-based immunization with homogeneous and chimeric G genes formed by fusion of the site II part of one genotype (GT) with the **site III** part of the same or another GT. Various site II-**site III** combinations between G genes of PV (Pasteur virus strain) **rabies** (GT1), Mokola (GT3), and EBL1 (European bat lyssavirus 1 [GT5]) viruses were tested. Plasmids pGPV-PV, pGMok-Mok, pGMok-PV, and pGEBL1-PV induced transient expression of correctly transported and folded antigens in neuroblastoma cells and virus-neutralizing antibodies against parental viruses in mice, whereas, pG-PVIII (**site III** part only) and pGPV-Mok did not. The **site III** part of PV (GT1) was a strong inducer of T helper cells and was very effective at presenting the site II part of various GTs. Both parts are required for correct folding and transport of chimeric G proteins which have a strong potential value for immunol. studies and development of multivalent vaccines. Chimeric plasmid pGEBL1-PV broadens the spectrum of protection against European lyssavirus genotypes (GT1, GT5, and GT6).
REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 14 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:18477 CAPLUS
DOCUMENT NUMBER: 128:100528
TITLE: An avirulent mutant of **rabies** virus is unable to infect motoneurons in vivo and in vitro
AUTHOR(S): Coulon, Patrice; Ternaux, Jean-Pierre; Flamand, Anne; Tuffereau, Christine
CORPORATE SOURCE: Laboratoire de Genetique des Virus, Centre National de la Recherche Scientifique, Gif sur Yvette, 91198, Fr.
SOURCE: Journal of Virology (1998), 72(1), 273-278
CODEN: JOVIAM; ISSN: 0022-538X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB An antigenic double mutant of **rabies** virus (challenge virus standard [CVS] strain) was selected by successive use of two neutralizing

antiglycoprotein monoclonal antibodies, both specific for antigenic **site III**. This mutant differed from the original virus strain by two amino acid substitutions in the ectodomain of the **glycoprotein**. The lysine in position 333 and the arginine in position 333 were replaced by asparagine and methionine, resp. This double mutant was not pathogenic for adult mice. When injected i.m. into the forelimbs of adult mice, this virus could not penetrate the nervous system, either by the motor or by the sensory route, while resp. single mutants infected motoneurons in the spinal cord and sensory neurons in the dorsal root ganglia. In vitro expts. showed that the double mutant was able to infect BHK cells, neuroblastoma cells, and freshly prepared embryonic motoneurons, albeit with a lower efficiency than the CVS strain. Upon further incubation at 370°, the motoneurons became resistant to infection by the mutant while remaining permissive to CVS infection. These results suggest that **rabies** virus uses different types of receptors: a mol. which is ubiquitously expressed at the surface of continuous cell lines and which is recognized by both CVS and the double mutant and a neuron-specific mol. which is not recognized by the double mutant.

L17 ANSWER 15 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:373551 CAPLUS
DOCUMENT NUMBER: 123:250825
TITLE: Mokola virus **glycoprotein** and chimeric proteins can replace **rabies** virus **glycoprotein** in the rescue of infectious defective **rabies** virus particles
AUTHOR(S): Mebatsion, Teshome; Schnell, Matthias J.; Conzelmann, Karl-Klaus
CORPORATE SOURCE: Federal Res. Cent. Virus Diseases Animals, Tuebingen, D-72076, Germany
SOURCE: Journal of Virology (1995), 69(3), 1444-51
CODEN: JOVIAM; ISSN: 0022-538X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A reverse genetics approach which allows the generation of infectious defective **rabies** virus (RV) particles entirely from plasmid-encoded genomes and proteins (K.-K. Conzelmann and M. Schnell, J. Virol. 68:713-719, 1994) was used to investigate the ability of a heterologous lyssavirus **glycoprotein** (G) and chimeric G constructs to function in the formation of infectious RV-like particles. Virions containing a chloramphenicol acetyltransferase (CAT) reporter gene (SDI-CAT) were generated in cells simultaneously expressing the genomic RNA analog, the RV N, P, M, and L proteins, and engineered G constructs from transfected plasmids. The infectivity of particles was determined by a CAT assay after passage to helper virus-infected cells. The heterologous G protein from Eth-16 virus (Mokola virus, lyssavirus serotype 3) as well as a construct in which the ectodomain of RV G was fused to the cytoplasmic and transmembrane domains of the Eth-16 virus G rescued infectious SDI-CAT particles. In contrast, a chimeric protein composed of the amino-terminal half of the Eth-16 virus G and the carboxy-terminal half of RV G failed to produce infectious particles. Site-directed mutagenesis was used to convert the antigenic **site III** of RV G to the corresponding sequence of Eth-16 G. This chimeric protein rescued infectious SDI-CAT particles as efficiently as RV G. Virions containing the chimeric protein were specifically neutralized by an anti-Eth-16 virus serum and escaped neutralization by a monoclonal antibody directed against RV antigenic **site III**. The results show that entire structural domains as well as short surface epitopes of lyssavirus G proteins may be exchanged without affecting the structure required to mediate infection of cells.

L17 ANSWER 16 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:207750 CAPLUS
DOCUMENT NUMBER: 118:207750
TITLE: Rapid sequence evolution of street **rabies** **glycoprotein** is related to the highly heterogeneous nature of the viral population

AUTHOR(S): Benmansour, A.; Brahimi, M.; Tuffereau, C.; Coulon, P.; Lafay, F.; Flamand, A.
CORPORATE SOURCE: Serv. Rage, Inst. Pasteur Algerie, Algiers, Algeria
SOURCE: Virology (1992), 187(1), 33-45
CODEN: VIRLAX; ISSN: 0042-6822
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The sequence of the **glycoprotein** gene of a street **rabies** virus was determined directly using fragments of a rabid dog brain after polymerase chain reaction amplification. Compared with that of the prototype strain CVS, this sequence displayed 10% divergence in overall amino acid composition However only 6% divergence was noted in the ectodomain suggesting that structural constraints are exerted on this portion of the **glycoprotein**. A human strain isolated on cell culture from the saliva of a patient with clin. **rabies** had only five amino acid differences with the canine isolate, an indication of their close relatedness. These differences could have originated during transmission from dog to dog, or from dog to man, or during isolation on cell culture; they are nonetheless indicative of a genetic evolution of street **rabies** virus. This evolution was further evidenced by the selection of cell-adapted variants which displayed new amino acid substitutions in the **glycoprotein**. One of them concerned antigenic **site III** where arginine at position 333 was replaced by glutamine. As expected, this substitution conferred resistance to a site IIIa monoclonal antibody (MAb), but surprisingly did not abolish neurovirulence for adult mice. However, a decrease in the neurovirulence of the cell-adapted variant in the presence of a site IIIa specific MAb was noted, suggesting that neurovirulence was due to a subpopulation neutralizable by the MAb. Simultaneous presence of both the parental and variant sequences was indeed evidenced in the brain of a mouse inoculated with the cell-adapted variant: during multiplication in the mouse brain, the frequency of the parental sequence rose from less than 10% to nearly 50%, indicating the selective advantage conferred by arginine 333 in nervous tissue. Together these results suggest an intrinsic heterogeneity of street **rabies** virus. This heterogeneity was further demonstrated by the sequencing of mol. clones of the **glycoprotein** gene, which revealed that only one-third of the viral genomes present in the brain of a rabid dog had the consensus sequence. Two-thirds of the clones analyzed displayed from one to three amino acid substitutions. Such heterogeneous populations have been referred to as quasispecies, a concept which implies heterogeneous populations kept together in a dynamic equilibrium This equilibrium could be rapidly displaced, giving the virus the capacity to adapt easily to new environmental conditions.

L17 ANSWER 17 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1991:512327 CAPLUS
DOCUMENT NUMBER: 115:112327
TITLE: Antigenicity of **rabies** virus **glycoprotein**
AUTHOR(S): Benmansour, A.; Leblois, H.; Coulon, P.; Tuffereau, C.; Gaudin, Y.; Flamand, A.; Lafay, F.
CORPORATE SOURCE: Lab. Genet. Virus, Cent. Natl. Rech. Sci., Gif-sur-Yvette, 91198, Fr.
SOURCE: Journal of Virology (1991), 65(8), 4198-203
CODEN: JOVIAM; ISSN: 0022-538X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Although the number of antigenic sites on the **rabies** virus **glycoprotein** that have been described regularly increases with time, no attempt has been made to carefully evaluate the relative importance of each of these sites. Here the authors provide a more precise description of the antigenicity of the protein in mice of the H-2d haplotype; this description was developed by using 264 newly isolated monoclonal antibodies (MAbs) and a collection of neutralization-resistant (MAR) mutants. Most of the MAbs (97%) recognized antigenic sites previously described as II and III. One minor antigenic site separated from **site III** by 3 amino acids, including a proline, was identified (minor site a). Despite their proximity, there is no overlap

between **site III** and minor site a; i.e., **site III**-specific MAR mutants were neutralized by the 6 MAbs defining minor site a, and vice versa. One of the MAbs, 1D1, reacted with SDS-treated **glycoprotein** in Western blots (immunoblots) under reducing conditions and was therefore probably directed against a linear epitope. A MAR mutant selected with this MAb was still neutralized by MAbs of other specificities. This linear epitope was called G1 (G, Gif). As a general rule, the authors propose to reserve the term antigenic site (either major or minor) for regions of the protein which are defined by several MAbs originating from different fusions and to describe regions of the protein which are defined by a single MAb as epitopes.

L17 ANSWER 18 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1986:440596 CAPLUS
DOCUMENT NUMBER: 105:40596
TITLE: Avirulent mutants of **rabies** virus: change in the **site III** of the **glycoprotein**
AUTHOR(S): Diallo, A.
CORPORATE SOURCE: Inst. Elevage Med. Vet. Pays Tropicaux, Maisons-Alfort, 94704, Fr.
SOURCE: Annales de Recherches Veterinaires (1986), 17(1), 3-6
CODEN: ARCVBP; ISSN: 0003-4193
DOCUMENT TYPE: Journal; General Review
LANGUAGE: French
AB A review with 16 refs. Using antiglycoprotein neutralizing monoclonal antibodies, avirulent mutants of **rabies** virus have been selected. All these mutants have a change in the **site III** of the **glycoprotein**; arginine 333 is replaced by either glutamine, or isoleucine, or glycine. The possibility of selecting avirulent mutants by using neutralizing monoclonal antibodies may be of use in developing live vaccines and to study the mol. basis of viral virulence.

L17 ANSWER 19 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1986:127732 CAPLUS
DOCUMENT NUMBER: 104:127732
TITLE: **Rabies**: effect on virulence of mutations at the **glycoprotein site III**
AUTHOR(S): Flamand, A.; Coulon, P.; Diallo, A.; Lafay, F.; Seif, I.
CORPORATE SOURCE: Lab. Genet. Virus, CNRS, Gif-sur-Yvette, 91190, Fr.
SOURCE: Annales de l'Institut Pasteur/Virology (1985), 136(4), 363-72
CODEN: AIPVEU; ISSN: 0769-2617
DOCUMENT TYPE: Journal; General Review
LANGUAGE: French
AB A review with 7 refs. of the size and structure of the antigenic **site III** of the **rabies** virus **glycoprotein** and of the effect of amino acid substitutions in **site III** on the virulence of the **rabies** virus.

L17 ANSWER 20 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1985:143960 CAPLUS
DOCUMENT NUMBER: 102:143960
TITLE: **Rabies** virulence: effect on pathogenicity and sequence characterization of **rabies** virus mutations affecting antigenic **site III** of the **glycoprotein**
AUTHOR(S): Seif, Isabelle; Coulon, Patrice; Rollin, Pierre Etienne; Flamand, Anne
CORPORATE SOURCE: Lab. Genet. Virus, Cent. Natl. Rech. Sci., Gif sur Yvette, 91190, Fr.
SOURCE: Journal of Virology (1985), 53(3), 926-34
CODEN: JOVIAM; ISSN: 0022-538X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Four neutralizing monoclonal antibodies that presumably bind to the same antigenic site on the CVS **glycoprotein** (antigenic **site**

III as defined by cross-neutralization tests) were used to isolate 58 mutants of the CVS strain of **rabies** virus. These mutants were highly resistant to the selecting antibodies and grew efficiently in cell cultures. They were classified into 5 groups on the basis of the pattern of resistance to the 4 antibodies. The pathogenicities of the mutants for adult mice were determined by intracerebral inoculation. Group 2 mutants were nonpathogenic or had attenuated pathogenicity. Mutants from the other groups were pathogenic and caused paralysis and death, as does CVS. The nucleotide alterations of representative mutants from each group were determined by the dideoxy method of RNA sequencing. In the **glycoproteins** of 8 nonpathogenic or attenuated mutants, an amino acid substitution at position 333 was identified. Arginine-333 was replaced by either glutamine or glycine. In the **glycoprotein** of 8 pathogenic mutants, an amino acid substitution at lysine-330, asparagine-336, or isoleucine-338 was identified. Thus, although all substitutions affected neutralization and were close to each other in the **glycoprotein** sequence, only substitutions at position 333 affected pathogenicity.

L17 ANSWER 21 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1984:605008 CAPLUS
DOCUMENT NUMBER: 101:205008
TITLE: Comparative nucleotide sequence analysis of the **glycoprotein** gene of antigenically altered **rabies** viruses
AUTHOR(S): Wunner, W. H.; Smith, C. L.; Lafon, M.; Ideler, J.; Wiktor, T. J.
CORPORATE SOURCE: Wistar Inst. Anat. Biol., Philadelphia, PA, 19104, USA
SOURCE: Nonsegmented Negat. Strand Viruses, [Proc. Symp. Mol. Biol. Negat. Strand Viruses] (1984), Meeting Date 1983, 279-84. Editor(s): Bishop, David H. L.; Compans, Richard W. Academic: Orlando, Fla. CODEN: 52EHAI
DOCUMENT TYPE: Conference
LANGUAGE: English
AB The **glycoprotein** (G) of **rabies** virus is the major viral antigen responsible for the induction and binding of virus-neutralizing antibodies. An expanded operational map of G from the ERA strain of **rabies** virus that delineates 5 functionally distinct antigenic sites is given. Nucleotide changes in the G gene which code for amino acid substitutions corresponding to **site** **III** epitopes in the operational map are identified.

L17 ANSWER 22 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2005:436097 BIOSIS
DOCUMENT NUMBER: PREV200510220603
TITLE: The human antibody repertoire specific for **rabies** virus **glycoprotein** as selected from immune libraries.
AUTHOR(S): Kramer, R. Arjen; Marissen, Wilfred E.; Goudsmit, Jaap; Visser, Therese J.; der Horst, Marieke Clijers-Van; Bakker, Arjen Q.; de Jong, Maureen; Jongeneelen, Mandy; Thijsse, Sandra; Backus, Harold H. J.; Rice, Amy B.; Weldon, William C.; Rupprecht, Charles E.; Dietzschold, Bernhard; Bakker, Alexander B. H.; de Kruif, John [Reprint Author]
CORPORATE SOURCE: Crucell Holland BV, POB 2048, NL-2301 CA Leiden, Netherlands
j.dekruif@crucell.com
SOURCE: European Journal of Immunology, (JUL 2005) Vol. 35, No. 7, pp. 2131-2145.
CODEN: EJIMAF. ISSN: 0014-2980.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 26 Oct 2005
Last Updated on STN: 26 Oct 2005
AB Antibody phage display technology was used to identify human monoclonal antibodies that neutralize **rabies** virus (RV). A phage repertoire was constructed using antibody genes harvested from the blood

of vaccinated donors. Selections using this repertoire and three different antigen formats of the RV **glycoprotein** (gp) resulted in the identification of 147 unique antibody fragments specific for the RV gp. Analysis of the DNA sequences of these antibodies demonstrated a large variation in the heavy- and light-chain germ-line gene usage, suggesting that a broad antibody repertoire was selected. The single-chain variable fragment (scFv) antibodies were tested in vitro for RV neutralization, resulting in 39 specificities that neutralize the virus. Of the scFv clones, 21 were converted into full-length human IgG(1) format. Analysis of viral escape variants and binding competition experiments indicated that the majority of the neutralizing antibodies are directed against antigenic **site III** of the RV gp. The obtained specificities expand the set of human anti-RV antibodies eligible for inclusion in an antibody cocktail aimed for use in **rabies** post-exposure prophylaxis.

L17 ANSWER 23 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2005:399411 BIOSIS
DOCUMENT NUMBER: PREV200510190484
TITLE: Novel human monoclonal antibody combination effectively neutralizing natural **rabies** virus variants and individual in vitro escape mutants.
AUTHOR(S): Bakker, Alexander B. H.; Marissen, Wilfred E.; Kramer, R. Arjen; Rice, Amy B.; Weldon, William C.; Niezgoda, Michael; Hanlon, Cathleen A.; Thijsse, Sandra; Backus, Harold H. J.; de Kruif, John; Dietzschold, Bernhard; Rupprecht, Charles E.; Goudsmit, Jaap [Reprint Author]
CORPORATE SOURCE: Crucell Holland BV, ARchimedesweg 4,POB 2048, NL-2301 CA Leiden, Netherlands
j.goudsmit@crucell.com
SOURCE: Journal of Virology, (JUL 2005) Vol. 79, No. 14, pp. 9062-9068.
CODEN: JOVIAM. ISSN: 0022-538X.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 5 Oct 2005
Last Updated on STN: 5 Oct 2005

AB The need to replace **rabies** immune globulin (RIG) as an essential component of **rabies** postexposure prophylaxis is widely acknowledged. We set out to discover a unique combination of human monoclonal antibodies (MAbs) able to replace RIG. Stringent criteria concerning neutralizing potency, affinity, breadth of neutralization, and coverage of natural **rabies** virus (RV) isolates and in vitro escape mutants were set for each individual antibody, and the complementarities of the two MAbs were defined at the onset. First, we identified and characterized one human MAb (CR57) with high in vitro and in vivo neutralizing potency and a broad neutralization spectrum. The linear antibody binding site was mapped on the RV **glycoprotein** as antigenic site I by characterizing CR57 escape mutants. Secondly, we selected using phage display a complementing antibody (CR4098) that recognized a distinct, nonoverlapping epitope (antigenic **site III**), showed similar neutralizing potency and breadth as CR57, and neutralized CR57 escape mutants. Reciprocally, CR57 neutralized RV variants escaping CR4098. Analysis of **glycoprotein** sequences of natural RV isolates revealed that the majority of strains contain both intact epitopes, and the few remaining strains contain at least one of the two. In vitro exposure of RV to the combination of CR57 and CR4098 yielded no escape mutants. In conclusion, a novel combination of human MAbs was discovered suitable to replace RIG.

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ACCESSION NUMBER: 2004:239856 BIOSIS
DOCUMENT NUMBER: PREV200400241302
TITLE: Mapping of the low ph-sensitive conformational epitope of **rabies** virus **glycoprotein** recognized by a monoclonal antibody 1-30-44.
AUTHOR(S): Kankanamge, Pushpa Jenette; Irie, Takashi; Mannen, Kazuaki;

Tochikura, Tadafumi S.; Kawai, Akihiko [Reprint Author]
CORPORATE SOURCE: Department of Molecular Microbiology, Graduate School of Pharmaceutical Sciences, Kyoto University, Sakyo-ku, Kyoto, Kyoto, 606-8501, Japan
akawai@pharm.kyoto-u.ac.jp
SOURCE: Microbiology and Immunology, (2003) Vol. 47, No. 7, pp. 507-519. print.
ISSN: 0385-5600 (ISSN print).
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 6 May 2004
Last Updated on STN: 6 May 2004

AB Monoclonal antibody (mAb) 1-30-44 recognized an acid-sensitive conformational epitope of **rabies** virus **glycoprotein** (G). The antigenicity of G protein exposed on the cell surface was lost when the infected cells were exposed to pH 5.8. By comparing the deduced amino acid sequence of G protein between the HEP-Flury strain and the epitope-negative CVS strain as well as the mAb-resistant escape mutants, two distant sites that contained Lys-202 and Asn-336 were shown to be involved in the epitope formation. Lys-202 is located in the so-called neurotoxin-like sequence, while Asn-336 is included in antigenic **site III** and is very near the amino acid at position 333, which is known to affect greatly the neuropathogenicity of **rabies** virus when changed. Consistent with this finding, antigenicity of a neurovirulent revertant of the HEP-Flury strain, in which Gln-333 of G protein was replaced by Arg, was also affected as shown by its greatly decreased reactivity with mAb 1-30-44 compared to that of the original avirulent HEP virus. Based on these results, we hypothesize that the neurotoxin-like domain and some amino acids in antigenic **site III** come into contact with each other to form a conformational epitope for mAb 1-30-44, and such a configuration would be lost when exposed to acidic conditions to perform a certain low pH-dependent function of G protein.

L17 ANSWER 25 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2000:179378 BIOSIS
DOCUMENT NUMBER: PREV200000179378
TITLE: Sequencing and position analysis of the **glycoprotein** gene of four Chinese **rabies** viruses.
AUTHOR(S): Tang Qing [Reprint author]; Yang Wei-song [Reprint author]; Orciari, Lillian A.
CORPORATE SOURCE: Epidemiology and Microbiology Institute of National Academy of Preventive Medicine, Beijing, 102206, China
SOURCE: Virologica Sinica, (March, 2000) Vol. 15, No. 1, pp. 22-33. print.
ISSN: 1003-5125.
DOCUMENT TYPE: Article
LANGUAGE: Chinese
ENTRY DATE: Entered STN: 11 May 2000
Last Updated on STN: 4 Jan 2002

AB The **glycoprotein** gene of human **rabies** vaccine strain (aG), one attenuated fixed strain (CTN-181) and two street viruses were sequenced and the amino acid sequences were deduced. The result shows that two street strains have two differences in nucleotide sequences and one in amino acid sequences, the nucleotide homology was higher compared with CTN (85.9%) than with aG (81.9%). Phylogenetic tree divided the street strains and the laboratory strains into two branches. High amino acid sequence similarity was present between the segments of the viral GP which may function as a recognition site for AchR and the receptor-binding region of the neurotoxins; CTN strain had Q substitution at position 333 and the other virulent strains preserved 333 Arg. In all strains 319 glycosylation was existed, glycosylation on 37 is also relatively conserved. The amino acid constitution of antigenic site II is identical in all compared strains, but on **site III** some attenuated strains have amino acid substitution on position 333 and other sites which related with pathogenicity.

L17 ANSWER 26 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 1999:417211 BIOSIS
DOCUMENT NUMBER: PREV199900417211
TITLE: Lyssavirus **glycoproteins** expressing immunologically potent foreign B cell and cytotoxic T lymphocyte epitopes as prototypes for multivalent vaccines.
AUTHOR(S): Desmezieres, Emmanuel; Jacob, Yves; Saron, Marie-Francoise; Delpeyroux, Francis; Tordo, Noel; Perrin, Pierre [Reprint author]
CORPORATE SOURCE: Laboratoire des Lyssavirus, Institut Pasteur, 25, rue du Dr Roux, 75724, Paris Cedex 15, France
SOURCE: Journal of General Virology, (Sept., 1999) Vol. 80, No. 9, pp. 2343-2351. print.
CODEN: JGVIAY. ISSN: 0022-1317.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 18 Oct 1999
Last Updated on STN: 18 Oct 1999

AB Truncated and chimeric lyssavirus **glycoprotein** (G) genes were used to carry and express non-lyssavirus B and T cell epitopes for DNA-based immunization of mice, with the aim of developing a multivalent vaccine prototype. Truncated G (GPVIII) was composed of the C-terminal half (aa 253-503) of the Pasteur **rabies** virus (PV: genotype 1) G containing antigenic **site III** and the transmembrane and cytoplasmic domains. The chimeric G (GEBL1-PV) was composed of the N-terminal half (aa 1-250) of the European bat lyssavirus 1 (genotype 5) G containing antigenic site II linked to GPVIII. Antigenic sites II and III are involved in the induction of virus-neutralizing antibodies. The B cell epitope was the C3 neutralization epitope of the poliovirus type 1 capsid VP1 protein. The T cell epitope was the H2d MHC 1-restricted epitope of the nucleoprotein of lymphocytic choriomeningitis virus (LCMV) involved in the induction of both cytotoxic T cell (CTL) production and protection against LCMV. Truncated G carrying foreign epitopes induced weak antibody production against **rabies** and polio viruses and provided weak protection against LCMV. In contrast, the chimeric plasmid containing various combinations of B and CTL epitopes elicited simultaneous immunological responses against both parental lyssaviruses and poliovirus and provided good protection against LCMV. The level of humoral and cellular immune responses depended on the order of the foreign epitopes inserted. Our results demonstrate that chimeric lyssavirus **glycoproteins** can be used not only to broaden the spectrum of protection against lyssaviruses, but also to express foreign B and CTL epitopes. The potential usefulness of chimeric lyssavirus **glycoproteins** for the development of multivalent vaccines against animal diseases and zoonoses, including **rabies**, is discussed.

L17 ANSWER 27 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 1999:60333 BIOSIS
DOCUMENT NUMBER: PREV199900060333
TITLE: Pathogenicity of different **rabies** virus variants inversely correlates with apoptosis and **rabies** virus **glycoprotein** expression in infected primary neuron cultures.
AUTHOR(S): Morimoto, Kinjiro; Hopper, D. Craig; Spitsin, Sergei; Koprowski, Hilary; Dietzschold, Bernhard [Reprint author]
CORPORATE SOURCE: Cent. Neurovirol., Dep. Microbiol. Immunol., Thomas Jefferson Univ., 1020 Locust St., Philadelphia, PA 19107-6799, USA
SOURCE: Journal of Virology, (Jan., 1999) Vol. 73, No. 1, pp. 510-518. print.
CODEN: JOVIAM. ISSN: 0022-538X.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 16 Feb 1999
Last Updated on STN: 16 Feb 1999

AB The mouse-adapted **rabies** virus strain CVS-24 has stable variants, CVS-B2c and CVS-N2c, which differ greatly in their pathogenicity

for normal adult mice and in their ability to infect nonneuronal cells. The **glycoprotein** (G protein), which has previously been implicated in **rabies** virus pathogenicity, shows substantial structural differences between these variants. Although prior studies have identified antigenic **site III** of the G protein as the major pathogenicity determinant, CVS-B2c and CVS-N2c do not vary at this site. The possibility that pathogenicity is inversely related to G protein expression levels is suggested by the finding that CVS-B2c, the less pathogenic variant, expresses at least fourfold-higher levels of G protein than CVS-N2c in infected neurons. Although there is some difference between CVS-B2c- and CVS-N2c-infected neurons in G protein mRNA expression levels, the differential expression of G protein appears to be largely determined by posttranslational mechanisms that affect G protein stability. Pulse-chase experiments indicated that the G protein of CVS-B2c is degraded more slowly than that of CVS-N2c. The accumulation of G protein correlated with the induction of programmed cell death in CVS-B2c-infected neurons. The extent of apoptosis was considerably lower in CVS-N2c-infected neurons, where G protein expression was minimal. While nucleoprotein (N protein) expression levels were similar in neurons infected with either variant, the transport of N protein into neuronal processes was strongly inhibited in CVS-B2c-infected cells. Thus, downregulation of G protein expression in neuronal cells evidently contributes to **rabies** virus pathogenesis by preventing apoptosis and the apparently associated failure of the axonal transport of N protein.

L17 ANSWER 28 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 1999:56699 BIOSIS
DOCUMENT NUMBER: PREV199900056699
TITLE: Low-affinity nerve-growth factor receptor (P75NTR) can serve as a receptor for **rabies** virus.
AUTHOR(S): Tuffereau, Christine [Reprint author]; Benejean, Jacqueline; Blondel, Danielle; Kieffer, Brigitte; Flamand, Ann
CORPORATE SOURCE: Lab. Genet. Virus, CNRS, 91198 Gif sur Yvette Cedex, France
SOURCE: EMBO (European Molecular Biology Organization) Journal, (Dec. 15, 1998) Vol. 17, No. 24, pp. 7250-7259. print. CODEN: EMJODG. ISSN: 0261-4189.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 16 Feb 1999
Last Updated on STN: 16 Feb 1999

AB A random-primed cDNA expression library constructed from the mRNA of neuroblastoma cells (NG108) was used to clone a specific **rabies** virus (RV) receptor. A soluble form of the RV **glycoprotein** (Gs) was utilized as a ligand to detect positive cells. We identified the murine low-affinity nerve-growth factor receptor, p75NTR. BSR cells stably expressing p75NTR were able to bind GS and G-expressing lepidopteran cells. The ability of the RV **glycoprotein** to bind p75NTR was dependent on the presence of a lysine and arginine in positions 330 and 333 respectively of antigenic **site III**, which is known to control virus penetration into motor and sensory neurons of adult mice. P75NTR-expressing BSR cells were permissive for a non-adapted fox RV isolate (street virus) and nerve growth factor (NGF) decreased this infection. In infected cells, p75NTR associates with the RV **glycoprotein** and could be precipitated with anti-G monoclonal antibodies. Therefore, p75NTR is a receptor for street RV.

L17 ANSWER 29 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 1999:55983 BIOSIS
DOCUMENT NUMBER: PREV199900055983
TITLE: Chimeric lyssavirus **glycoproteins** with increased immunological potential.
AUTHOR(S): Jallet, Corinne; Jacob, Yves; Bahloul, Chokri; Drings, Astrid; Desmezieres, Emmanuel; Tordo, Noel; Perrin, Pierre [Reprint author]
CORPORATE SOURCE: Lab. Lyssavirus, Inst. Pasteur, 28 rue du Dr. Roux, 75724

Paris Cedex 15, France
SOURCE: Journal of Virology, (Jan., 1999) Vol. 73, No. 1, pp. 225-233. print.
CODEN: JOVIAM. ISSN: 0022-538X.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 16 Feb 1999
Last Updated on STN: 16 Feb 1999

AB The **rabies** virus **glycoprotein** molecule (G) can be divided into two parts separated by a flexible hinge: the NH2 half (site II part) containing antigenic site II up to the linear region (amino acids (aa) 253 to 275 encompassing epitope VI (aa 264)) and the COOH half (**site III** part) containing antigenic **site III** and the transmembrane and cytoplasmic domains. The structural and immunological roles of each part were investigated by cell transfection and mouse DNA-based immunization with homogeneous and chimeric G genes formed by fusion of the site II part of one genotype (GT) with the **site III** part of the same or another GT. Various site II-**site III** combinations between G genes of PV (Pasteur virus strain) **rabies** (GT1), Mokola (GT3), and EBL1 (European bat lyssavirus 1 (GT5)) viruses were tested. Plasmids pGPV-PV, pGMok-Mok, pGMokPV, and pGEBL1-PV induced transient expression of correctly transported and folded antigens in neuroblastoma cells and virus-neutralizing antibodies against parental viruses in mice, whereas, pG-PVIII (**site III** part only) and pGPV-Mok did not. The **site III** part of PV (GT1) was a strong inducer of T helper cells and was very effective at presenting the site II part of various GTs. Both parts are required for correct folding and transport of chimeric G proteins which have a strong potential value for immunological studies and development of multivalent vaccines. Chimeric plasmid pGEBL1-PV broadens the spectrum of protection against European lyssavirus genotypes (GT1, GT5, and GT6).

L17 ANSWER 30 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1998:79305 BIOSIS
DOCUMENT NUMBER: PREV199800079305
TITLE: An avirulent mutant of **rabies** virus is unable to infect motoneurons in vivo and in vitro.
AUTHOR(S): Coulon, Patrice; Ternaux, Jean-Pierre; Flamand, Anne; Tuffereau, Christine [Reprint author]
CORPORATE SOURCE: Lab. Genetique Virus, Cent. Natl. Recherche Sci., Ave. Terrasse, 91198 Gif sur Yvette cedex, France
SOURCE: Journal of Virology, (Jan., 1998) Vol. 72, No. 1, pp. 273-278. print.
CODEN: JOVIAM. ISSN: 0022-538X.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 24 Feb 1998
Last Updated on STN: 24 Feb 1998

AB An antigenic double mutant of **rabies** virus (challenge virus standard (CVS) strain) was selected by successive use of two neutralizing antiglycoprotein monoclonal antibodies, both specific for antigenic **site III**. This mutant differed from the original virus strain by two amino acid substitutions in the ectodomain of the **glycoprotein**. The lysine in position 330 and the arginine in position 333 were replaced by asparagine and methionine, respectively. This double mutant was not pathogenic for adult mice. When injected intramuscularly into the forelimbs of adult mice, this virus could not penetrate the nervous system, either by the motor or by the sensory route, while respective single mutants infected motoneurons in the spinal cord and sensory neurons in the dorsal root ganglia. In vitro experiments showed that the double mutant was able to infect BHK cells, neuroblastoma cells, and freshly prepared embryonic motoneurons, albeit with a lower efficiency than the CVS strain. Upon further incubation at 37degreeC, the motoneurons became resistant to infection by the mutant while remaining permissive to CVS infection. These results suggest that **rabies** virus uses different types of receptors: a molecule which is ubiquitously expressed at the surface of continuous cell lines and which is recognized

by both CVS and the double mutant and a neuron-specific molecule which is not recognized by the double mutant.

L17 ANSWER 31 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 1995:165375 BIOSIS
DOCUMENT NUMBER: PREV199598179675
TITLE: Mokola virus **glycoprotein** and chimeric proteins can replace **rabies** virus **glycoprotein** in the rescue of infectious defective **rabies** virus particles.
AUTHOR(S): Mebatsion, Teshome; Schnell, Matthias J.; Conzelmann, Karl-Klaus [Reprint author]
CORPORATE SOURCE: Inst. Clinical Virol., Federal Res. Cent. Virus Diseases Animals, Paul-Ehrlich-Strasse 28, D-72076 Tuebingen, Germany
SOURCE: Journal of Virology, (1995) Vol. 69, No. 3, pp. 1444-1451. CODEN: JOVIAM. ISSN: 0022-538X.
DOCUMENT TYPE: Article
LANGUAGE: English
OTHER SOURCE: Genbank-U17064
ENTRY DATE: Entered STN: 11 Apr 1995
Last Updated on STN: 11 Apr 1995

AB A reverse genetics approach which allows the generation of infectious defective **rabies** virus (RV) particles entirely from plasmid-encoded genomes and proteins (K.-K Conzelmann and M. Schnell, J. Virol. 68:713-719, 1994) was used to investigate the ability of a heterologous lyssavirus **glycoprotein** (G) and chimeric G constructs to function in the formation of infectious RV-like particles. Virions containing a chloramphenicol acetyltransferase (CAT) reporter gene (SDI-CAT) were generated in cells simultaneously expressing the genomic RNA analog, the RV N, P, M, and L proteins, and engineered G constructs from transfected plasmids. The infectivity of particles was determined by a CAT assay after passage to helper virus-infected cells. The heterologous G protein from Eth-16 virus (Mokola virus, lyssavirus serotype 3) as well as a construct in which the ectodomain of RV G was fused to the cytoplasmic and transmembrane domains of the Eth-16 virus G rescued infectious SDI-CAT particles. In contrast, a chimeric protein composed of the amino-terminal half of the Eth-16 virus G and the carboxy-terminal half of RV G failed to produce infectious particles. Site-directed mutagenesis was used to convert the antigenic **site III** of RV G to the corresponding sequence of Eth-16 G. This chimeric protein rescued infectious SDI-CAT particles as efficiently as RV G. Virions containing the chimeric protein were specifically neutralized by an anti-Eth-16 virus serum and escaped neutralization by a monoclonal antibody directed against RV antigenic **site III**. The results show that entire structural domains as well as short surface epitopes of lyssavirus G proteins may be exchanged without affecting the structure required to mediate infection of cells.

L17 ANSWER 32 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 1992:218225 BIOSIS
DOCUMENT NUMBER: PREV199293118450; BA93:118450
TITLE: RAPID SEQUENCE EVOLUTION OF STREET **RABIES GLYCOPROTEIN** IS RELATED TO THE HIGHLY HETEROGENEOUS NATURE OF THE VIRAL POPULATION.
AUTHOR(S): BENMANSOUR A [Reprint author]; BRAHIMI M; TUFFEREAU C; COULON P; LAFAY F; FLAMAND A
CORPORATE SOURCE: LABORATOIRE DE VIROLOGIE ET IMUNOLOGIE MOLECULAIRES, INSTITUT NATIONAL DE LA RECHERCHE AGRONOMIQUE, F-78350 JOUY-EN-JOSAS CEDEX, FRANCE
SOURCE: Virology, (1992) Vol. 187, No. 1, pp. 33-45. CODEN: VIRLAX. ISSN: 0042-6822.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
OTHER SOURCE: GENBANK-M81058; GENBANK-M81059; GENBANK-M81060
ENTRY DATE: Entered STN: 4 May 1992

Last Updated on STN: 1 Jun 1992

AB The sequence of the **glycoprotein** gene of a street **rabies** virus was determined directly using fragments of a rabid dog brain after PCR amplification. Compared with that of the prototype strain CVS, this sequence displayed 10% divergence in overall amino acid composition. However only 6% divergence was noted in the ectodomain suggesting that structural constraints are exerted on this portion of the **glycoprotein**. A human strain isolated on cell culture from the saliva of a patient with clinical **rabies** had only five amino acid differences with the canine isolate, an indication of their close relatedness. These differences could have originated during transmission from dog to dog, or from dog to man, or during isolation on cell culture; they are nonetheless indicative of a genetic evolution of street **rabies** virus. This evolution was further evidenced by the selection of cell-adapted variants which displayed new amino acid substitutions in the **glycoprotein**. One of them concerned antigenic **site III** where arginine at position 333 was replaced by glutamine. As expected this substitution conferred resistance to a site IIIa monoclonal antibody (MAb), but surprisingly did not abolish neurovirulence for adult mice. However, a decrease in the neurovirulence of the cell-adapted variant in the presence of a site IIIa specific MAb was noted, suggesting that neurovirulence due to a subpopulation neutralizable by the MAb. Simultaneous presence of both the parental and variant sequences was indeed evidenced in the brain of a mouse inoculated with the cell-adapted variant: during multiplication in the mouse brain, the frequency of the parental sequence rose from less than 10% to nearly 50%, indicating the selective advantage conferred by arginine 333 in nervous tissue. Altogether these results were suggestive of an intrinsic heterogeneity of street **rabies** virus. This heterogeneity was further demonstrated by the sequencing of molecular clones of the **glycoprotein** gene, which revealed that only one-third of the viral genomes present in the brain of a rabid dog had the consensus sequence. Two-thirds of the clones analyzed displayed from one to three amino acid substitutions. Such heterogeneous populations have been referred to as quasispecies, a concept which implies heterogeneous populations kept together in a dynamic equilibrium. This equilibrium could be rapidly displaced, giving the virus the capacity to adapt easily to new environmental conditions.

L17 ANSWER 33 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 1991:431756 BIOSIS
DOCUMENT NUMBER: PREV199192087921; BA92:87921
TITLE: ANTIGENICITY OF **RABIES** VIRUS **GLYCOPROTEIN** .
AUTHOR(S): BENMANSOUR A [Reprint author]; LEBLOIS H; COULON P; TUFFEREAU C; GAUDIN Y; FLAMAND A; LAFAY F
CORPORATE SOURCE: LABORATOIRE GENETIQUE VIRUS, CENTRE NATIONAL RECHERCHE SCIENTIFIQUE, 91198 GIF-SUR-YVETTE CEDEX, FR
SOURCE: Journal of Virology, (1991) Vol. 65, No. 8, pp. 4198-4203. CODEN: JOVIAM. ISSN: 0022-538X.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 26 Sep 1991
Last Updated on STN: 26 Sep 1991

AB Although the number of antigenic sites on the **rabies** virus **glycoprotein** that have been described regularly increases with time, no attempt has been made to carefully evaluate the relative importance of each of these sites. Here we provide a more precise description of the antigenicity of the protein in mice of the H-2d haplotype; we developed this description by using 264 newly isolated monoclonal antibodies (MAbs) and a collection of neutralization-resistant (MAR) mutants. Most of the MAbs (97%) recognized antigenic sites previously described as II and III. One minor antigenic site separated from **site III** by three amino acids, including a proline, was identified (minor site a). Despite their proximity, there is no overlap between **site III** and minor site a; i.e., **site III**-specific MAR mutants were neutralized by the

six MAbs defining minor site a, and vice versa. One of our MAbs, 1D1, reacted with sodium dodecyl sulfate-treated **glycoprotein** in Western blots (immunoblots) under reducing conditions and was therefore probably directed against a liner epitope. A MAR mutant selected with this MAb was still neutralized by MAbs of other specificities. This linear epitope was called G1 (G, Gif). As a general rule, we proposed to reserve the term "antigenic site" (either major or minor) for regions of the protein which are defined by several MAbs originating from different fusions and to describe regions of the protein which are defined by a single MAb as epitopes. It would be interesting to test whether the same regions of the **rabies** virus **glycoprotein** are antigenic in mice of different haplotypes or in other species.

L17 ANSWER 34 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 1989:204165 BIOSIS
DOCUMENT NUMBER: PREV198987105069; BA87:105069
TITLE: CHARACTERIZATION OF **RABIES** VIRUS ISOLATED FROM BOVINES IN PARANA BRAZIL BY USING MONOCLONAL ANTIBODIES.
AUTHOR(S): MONTANO J A [Reprint author]; POLACK G W
CORPORATE SOURCE: INST TECNOL PARANA, CAIXA POSTAL 357, 80001 CURITIBA, PR, BRAZIL
SOURCE: Arquivos de Biologia e Tecnologia (Curitiba), (1988) Vol. 31, No. 4, pp. 595-602.
CODEN: ABTTAP. ISSN: 0365-0979.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 20 Apr 1989
Last Updated on STN: 20 Apr 1989

AB The identification of two antigenic variants of **rabies** virus in Brazil, carried out by T.J. Wiktor in 1981 from strains considered to be atypical (Hayashi et al.), as well as the isolation of vaccine virus from one **rabies** case in a vaccinated coati (Ohi et al.), demonstrate the importance of the studies on antigenic characterization as an indispensable tool for epidemiological surveillance. Thus, a virus strain isolated from a bovine said to be vaccinated with the ERA vaccine and that died 21 days later, as well as a virus isolate from a bovine registered as not vaccinated, were studied with a panel of 36 anti-nucleocapsid monoclonal antibodies and another of 40 anti-**glycoprotein** monoclonal antibodies, granted by the Wistar Institute (Philadelphia). One of the monoclonal antibodies, 502-3, identifies these strains as Lyssavirus, while 103-7 and 422-5 confirm them as true **rabies** viruses and not **rabies** - related viruses. The other monoclonal antibodies show minor differences in the antigenic **sites III**-B and V in the **glycoprotein** of the **rabies** virus isolated from the vaccinated bovine as compared with the pattern described for the ERA vaccine strain and that of the isolate from the not-vaccinated animal. It is not yet possible to assign to these differences, which exclude the hypothesis of vaccine-induced **rabies**, the major role in the failure of vaccine prophylaxis. It was also showed that the ERA strain and a field strain from bovines have have the same antigenic pattern. It is still necessary to characterize more strains isolated from not-vaccinated bovines and vampire bats in order to have a better basis for the comparative study with other virus strains.

L17 ANSWER 35 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 1986:366010 BIOSIS
DOCUMENT NUMBER: PREV198631061284; BR31:61284
TITLE: AVIRULENT MUTANTS OF **RABIES** VIRUS CHANGE IN THE **SITE III** OF THE **GLYCOPROTEIN**.
AUTHOR(S): DIALLO A [Reprint author]
CORPORATE SOURCE: INST D'ELEVAGE MED VET PAYS TROPICAUX, 10 RUE PIERRE CURIE, 94704 MAISONS-ALFORT CEDEX, FR
SOURCE: Annales de Recherches Veterinaires, (1986) Vol. 17, No. 1, pp. 3-6.
CODEN: ARCVBP. ISSN: 0003-4193.

DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: FRENCH
ENTRY DATE: Entered STN: 12 Sep 1986
Last Updated on STN: 12 Sep 1986

L17 ANSWER 36 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1986:17341 BIOSIS
DOCUMENT NUMBER: PREV198630017341; BR30:17341
TITLE: A SYNTHETIC PEPTIDE CORRESPONDING TO ANTIGENIC **SITE III** OF **RABIES** VIRUS **GLYCOPROTEIN** AS A TOOL TO STUDY THE VIRULENCE OF THE CVS STRAIN.
AUTHOR(S): COULON P [Reprint author]; BLANOT D; VAN HEIJENOORT J; FLAMAND A
CORPORATE SOURCE: LAB GENETIQUE DE VIRUS, CNRS, 91190 GIF SUR YVETTE, FRANCE
SOURCE: Virus Research, (1985) No. SUPPL. 1, pp. 64.
Meeting Info.: 6TH INTERNATIONAL MEETING ON NEGATIVE STRAND VIRUSES, CAMBRIDGE, ENGLAND, SEPT. 15-20, 1985. VIRUS RES.
CODEN: VIREDF. ISSN: 0168-1702.
DOCUMENT TYPE: Conference; (Meeting)
FILE SEGMENT: BR
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 25 Apr 1986
Last Updated on STN: 25 Apr 1986

L17 ANSWER 37 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1985:316536 BIOSIS
DOCUMENT NUMBER: PREV198579096532; BA79:96532
TITLE: **RABIES** VIRULENCE EFFECT ON PATHOGENICITY AND SEQUENCE CHARACTERIZATION OF **RABIES** VIRUS MUTATIONS AFFECTING ANTIGENIC **SITE III** OF THE **GLYCOPROTEIN**.
AUTHOR(S): SEIF I [Reprint author]; COULON P; ROLLIN P E; FLAMAND A
CORPORATE SOURCE: LABORATOIRE GENETIQUE VIRUS, CENTRE NATIONAL RECHERCHE SCIENTIFIQUE, 91190 GIF YVETTE
SOURCE: Journal of Virology, (1985) Vol. 53, No. 3, pp. 926-934.
CODEN: JOVIAM. ISSN: 0022-538X.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH

AB Using 4 neutralizing monoclonal antibodies which presumably bind to the same antigenic site on the CVS **glycoprotein** (antigenic **site III** as defined by cross-neutralization tests), 58 mutants of the CVS strain of **rabies** virus were isolated. These mutants were highly resistant to the selecting antibodies and grew efficiently in cell cultures. They were classified into 5 groups on the basis of the pattern of resistance to the 4 antibodies. Pathogenicities of the mutants for adult mice were determined by intracerebral inoculation. Group 2 mutants were nonpathogenic or had attenuated pathogenicity. Mutants from the other groups were pathogenic, causing paralysis and death as does CVS. The nucleotide alterations of representative mutants from each group were determined by using the dideoxy method of RNA sequencing. In the **glycoproteins** of 8 nonpathogenic or attenuated mutants, an amino acid substitution was identified at position 333. Arginine 333 was replaced by either glutamine or glycine. In the **glycoprotein** of 8 pathogenic mutants, an amino acid substitution was identified at lysine 330, asparagine 336 or isoleucine 338. Thus, although all substitutions affected neutralization and were located close to each other in the **glycoprotein** sequence, only substitutions at position 333 affected pathogenicity.

L17 ANSWER 1 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:178601 CAPLUS
TITLE: A simple immuno-capture ELISA to estimate **rabies** viral **glycoprotein** antigen in vaccine manufacture
AUTHOR(S): Nagarajan, T.; Reddy, G. S.; Mohana Subramanian, B.; Rajalakshmi, S.; Thiagarajan, D.; Tordo, N.; Jallet, C.; Srinivasan, V. A.
CORPORATE SOURCE: Rakshapuram, Indian Immunologicals Limited, Gachibowli (PO), Hyderabad, 500019, India
SOURCE: Biologicals (2006), 34(1), 21-27
CODEN: BILSEC; ISSN: 1045-1056
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

L17 ANSWER 2 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:683093 CAPLUS
DOCUMENT NUMBER: 143:210176
TITLE: The human antibody repertoire specific for **rabies** virus **glycoprotein** as selected from immune libraries
AUTHOR(S): Kramer, R. Arjen; Marissen, Wilfred E.; Goudsmit, Jaap; Visser, Therese J.; Clijsters-Van der Horst, Marieke; Bakker, Arjen Q.; de Jong, Maureen; Jongeneelen, Mandy; Thijsse, Sandra; Backus, Harold H. J.; Rice, Amy B.; Weldon, William C.; Rupprecht, Charles E.; Dietzschold, Bernhard; Bakker, Alexander B. H.; de Kruif, John
CORPORATE SOURCE: Crucell Holland B.V., Leiden, Neth.
SOURCE: European Journal of Immunology (2005), 35(7), 2131-2145
CODEN: EJIMAF; ISSN: 0014-2980
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 3 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:617037 CAPLUS
DOCUMENT NUMBER: 143:131477
TITLE: Novel human monoclonal antibody combination effectively neutralizing natural **rabies** virus variants and individual in vitro escape mutants
AUTHOR(S): Bakker, Alexander B. H.; Marissen, Wilfred E.; Kramer, R. Arjen; Rice, Amy B.; Weldon, William C.; Niezgoda, Michael; Hanlon, Cathleen A.; Thijsse, Sandra; Backus, Harold H. J.; de Kruif, John; Dietzschold, Bernhard; Rupprecht, Charles E.; Goudsmit, Jaap
CORPORATE SOURCE: Crucell Holland BV, Leiden, Neth.
SOURCE: Journal of Virology (2005), 79(14), 9062-9068
CODEN: JOVIAM; ISSN: 0022-538X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 4 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:667137 CAPLUS
DOCUMENT NUMBER: 139:321839
TITLE: Mapping of the low ph-sensitive conformational epitope of **rabies** virus **glycoprotein** recognized by a monoclonal antibody #1-30-44
AUTHOR(S): Kankanamge, Pushpa Jenette; Irie, Takashi; Mannen, Kazuaki; Tochikura, Tadafumi S.; Kawai, Akihiko
CORPORATE SOURCE: Department of Molecular Microbiology, Graduate School

of Pharmaceutical Science, Kyoto University, Kyoto, 606-8501, Japan
SOURCE: Microbiology and Immunology (2003), 47(7), 507-519
CODEN: MIIMDV; ISSN: 0385-5600
PUBLISHER: Center for Academic Publications Japan
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 5 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:756739 CAPLUS
DOCUMENT NUMBER: 133:320992
TITLE: Fusion proteins of lyssavirus antigens for use in **rabies** vaccines and their preparation
INVENTOR(S): Jacob, Yves; Perrin, Pierre; Tordo, Noel; Bahloul, Chokri
PATENT ASSIGNEE(S): Institut Pasteur, Fr.
SOURCE: PCT Int. Appl., 89 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000063242	A1	20001026	WO 2000-IB564	20000417
W: BR, CA, MX, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6673601	B1	20040106	US 2000-549519	20000414
CA 2370278	AA	20001026	CA 2000-2370278	20000417
EP 1171454	A1	20020116	EP 2000-917245	20000417
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
BR 2000009746	A	20020122	BR 2000-9746	20000417
US 2005064389	A1	20050324	US 2003-608538	20030630

PRIORITY APPLN. INFO.: US 1999-129501P P 19990415
US 2000-549519 A1 20000414
WO 2000-IB564 W 20000417
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 6 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:753635 CAPLUS
DOCUMENT NUMBER: 134:357460
TITLE: Chimeric lyssavirus **glycoprotein**: New vector for multivalent vaccines
AUTHOR(S): Desmezieres, E.; Jacob, Y.; Saron, M. -F.; Delpeyroux, F.; Tordo, N.; Perrin, P.
CORPORATE SOURCE: Lyssavirus Laboratory, Pasteur Institute, Paris, 75724/15, Fr.
SOURCE: Animal Cell Technology: Products from Cells, Cells as Products, Proceedings of the ESACT Meeting, 16th, Lugano, Switzerland, Apr. 25-29, 1999 (1999), Meeting Date 1999, 447-453. Editor(s): Bernard, Alain. Kluwer Academic Publishers: Dordrecht, Neth.
CODEN: 69ANWU
DOCUMENT TYPE: Conference
LANGUAGE: English
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 7 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:727176 CAPLUS
DOCUMENT NUMBER: 134:264708
TITLE: DNA-based immunization against **rabies** and **rabies**-related viruses: Towards multivalent

vaccines
AUTHOR(S): Perrin, P.; Jacob, Y.; Desmezieres, E.; Tordo, N.
CORPORATE SOURCE: Lyssavirus Laboratory, Institut Pasteur, Paris, Fr.
SOURCE: Developments in Biologicals (2000), 104(Development and Clinical Progress of DNA Vaccines), 151-157
CODEN: DBEIAI; ISSN: 1424-6074
PUBLISHER: S. Karger AG
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 8 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:384387 CAPLUS
DOCUMENT NUMBER: 133:29603
TITLE: Stable, attenuated **rabies** virus mutants as live vaccines
INVENTOR(S): Mebatsion, Teshome; Conzelmann, Karl Klaus
PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.
SOURCE: PCT Int. Appl., 15 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000032755	A1	20000608	WO 1999-EP9101	19991119
W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2352231	AA	20000608	CA 1999-2352231	19991119
BR 9915703	A	20010814	BR 1999-15703	19991119
EP 1131414	A1	20010912	EP 1999-973064	19991119
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
TR 200101445	T2	20011022	TR 2001-200101445	19991119
US 6719981	B1	20040413	US 2001-856653	20010706

PRIORITY APPLN. INFO.: EP 1998-204001 A 19981127
WO 1999-EP9101 W 19991119
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 9 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:344866 CAPLUS
DOCUMENT NUMBER: 134:159961
TITLE: Sequencing and position analysis of **glycoprotein** gene of four Chinese **rabies** viruses
AUTHOR(S): Tang, Qing; Orciari, Lillian A.; Rupprechti, Charles E.; Zhao, Xiuqin; Li, Zhigang; Yang, Weisong
CORPORATE SOURCE: Epidemiology and Microbiology Institute, National Academy of Preventive Medicine, Beijing, 102206, Peop. Rep. China
SOURCE: Zhongguo Bingduxue (2000), 15(1), 22-33
CODEN: ZBINER; ISSN: 1003-5125
PUBLISHER: Kexue Chubanshe
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

L17 ANSWER 10 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:594440 CAPLUS
DOCUMENT NUMBER: 131:298430
TITLE: Lyssavirus **glycoproteins** expressing

immunologically potent foreign B cell and cytotoxic T lymphocyte epitopes as prototypes for multivalent vaccines
AUTHOR(S): Desmezieres, Emmanuel; Jacob, Yves; Saron, Marie-Francoise; Delpeyroux, Francis; Tordo, Noel; Perrin, Pierre
CORPORATE SOURCE: Laboratoire des Lyssavirus, Paris, 75724, Fr.
SOURCE: Journal of General Virology (1999), 80(9), 2343-2351
CODEN: JGVIAY; ISSN: 0022-1317
PUBLISHER: Society for General Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 11 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:43966 CAPLUS
DOCUMENT NUMBER: 130:221366
TITLE: Low-affinity nerve-growth factor receptor (p75NTR) can serve as a receptor for **rabies** virus
AUTHOR(S): Tuffereau, Christine; Benejean, Jacqueline; Blondel, Danielle; Kieffer, Brigitte; Flamand, Anne
CORPORATE SOURCE: CNRS, Laboratoire de Genetique des Virus, Gif sur Yvette, 91198, Fr.
SOURCE: EMBO Journal (1998), 17(24), 7250-7259
CODEN: EMJODG; ISSN: 0261-4189
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 69 THERE ARE 69 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 12 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:810734 CAPLUS
DOCUMENT NUMBER: 130:165263
TITLE: Pathogenicity of different **rabies** virus variants inversely correlates with apoptosis and **rabies** virus **glycoprotein** expression in infected primary neuron cultures
AUTHOR(S): Morimoto, Kinjiro; Hooper, D. Craig; Spitsin, Sergei; Koprowski, Hilary; Dietzschold, Bernhard
CORPORATE SOURCE: Center for Neurovirology, Department of Microbiology and Immunology, Thomas Jefferson University, Philadelphia, PA, 19107-6799, USA
SOURCE: Journal of Virology (1999), 73(1), 510-518
CODEN: JOVIAM; ISSN: 0022-538X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 13 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:810701 CAPLUS
DOCUMENT NUMBER: 130:152276
TITLE: Chimeric lyssavirus **glycoproteins** with increased immunological potential
AUTHOR(S): Jallet, Corinne; Jacob, Yves; Bahloul, Chokri; Drings, Astrid; Desmezieres, Emmanuel; Tordo, Noel; Perrin, Pierre
CORPORATE SOURCE: Laboratoire des Lyssavirus, Institut Pasteur, Paris, 75724, Fr.
SOURCE: Journal of Virology (1999), 73(1), 225-233
CODEN: JOVIAM; ISSN: 0022-538X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 14 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:18477 CAPLUS
DOCUMENT NUMBER: 128:100528
TITLE: An avirulent mutant of **rabies** virus is unable to infect motoneurons in vivo and in vitro
AUTHOR(S): Coulon, Patrice; Ternaux, Jean-Pierre; Flamand, Anne; Tuffereau, Christine
CORPORATE SOURCE: Laboratoire de Genetique des Virus, Centre National de la Recherche Scientifique, Gif sur Yvette, 91198, Fr.
SOURCE: Journal of Virology (1998), 72(1), 273-278
CODEN: JOVIAM; ISSN: 0022-538X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

L17 ANSWER 15 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:373551 CAPLUS
DOCUMENT NUMBER: 123:250825
TITLE: Mokola virus **glycoprotein** and chimeric proteins can replace **rabies** virus **glycoprotein** in the rescue of infectious defective **rabies** virus particles
AUTHOR(S): Mebatsion, Teshome; Schnell, Matthias J.; Conzelmann, Karl-Klaus
CORPORATE SOURCE: Federal Res. Cent. Virus Diseases Animals, Tuebingen, D-72076, Germany
SOURCE: Journal of Virology (1995), 69(3), 1444-51
CODEN: JOVIAM; ISSN: 0022-538X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

L17 ANSWER 16 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:207750 CAPLUS
DOCUMENT NUMBER: 118:207750
TITLE: Rapid sequence evolution of street **rabies** **glycoprotein** is related to the highly heterogeneous nature of the viral population
AUTHOR(S): Benmansour, A.; Brahimi, M.; Tuffereau, C.; Coulon, P.; Lafay, F.; Flamand, A.
CORPORATE SOURCE: Serv. Rage, Inst. Pasteur Algerie, Algiers, Algeria
SOURCE: Virology (1992), 187(1), 33-45
CODEN: VIRLAX; ISSN: 0042-6822
DOCUMENT TYPE: Journal
LANGUAGE: English

L17 ANSWER 17 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1991:512327 CAPLUS
DOCUMENT NUMBER: 115:112327
TITLE: Antigenicity of **rabies** virus **glycoprotein**
AUTHOR(S): Benmansour, A.; Leblois, H.; Coulon, P.; Tuffereau, C.; Gaudin, Y.; Flamand, A.; Lafay, F.
CORPORATE SOURCE: Lab. Genet. Virus, Cent. Natl. Rech. Sci., Gif-sur-Yvette, 91198, Fr.
SOURCE: Journal of Virology (1991), 65(8), 4198-203
CODEN: JOVIAM; ISSN: 0022-538X
DOCUMENT TYPE: Journal
LANGUAGE: English

L17 ANSWER 18 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1986:440596 CAPLUS
DOCUMENT NUMBER: 105:40596
TITLE: Avirulent mutants of **rabies** virus: change in the **site III** of the **glycoprotein**
AUTHOR(S): Diallo, A.
CORPORATE SOURCE: Inst. Elevage Med. Vet. Pays Tropicaux,

Maisons-Alfort, 94704, Fr.
SOURCE: Annales de Recherches Veterinaires (1986), 17(1), 3-6
CODEN: ARCVBP; ISSN: 0003-4193
DOCUMENT TYPE: Journal; General Review
LANGUAGE: French

L17 ANSWER 19 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1986:127732 CAPLUS
DOCUMENT NUMBER: 104:127732
TITLE: **Rabies**: effect on virulence of mutations at the **glycoprotein site III**
AUTHOR(S): Flamand, A.; Coulon, P.; Diallo, A.; Lafay, F.; Seif, I.
CORPORATE SOURCE: Lab. Genet. Virus, CNRS, Gif-sur-Yvette, 91190, Fr.
SOURCE: Annales de l'Institut Pasteur/Virology (1985), 136(4), 363-72
CODEN: AIPVEU; ISSN: 0769-2617
DOCUMENT TYPE: Journal; General Review
LANGUAGE: French

L17 ANSWER 20 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1985:143960 CAPLUS
DOCUMENT NUMBER: 102:143960
TITLE: **Rabies** virulence: effect on pathogenicity and sequence characterization of **rabies** virus mutations affecting antigenic **site III** of the **glycoprotein**
AUTHOR(S): Seif, Isabelle; Coulon, Patrice; Rollin, Pierre Etienne; Flamand, Anne
CORPORATE SOURCE: Lab. Genet. Virus, Cent. Natl. Rech. Sci., Gif sur Yvette, 91190, Fr.
SOURCE: Journal of Virology (1985), 53(3), 926-34
CODEN: JOVIAM; ISSN: 0022-538X
DOCUMENT TYPE: Journal
LANGUAGE: English

L17 ANSWER 21 OF 37 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1984:605008 CAPLUS
DOCUMENT NUMBER: 101:205008
TITLE: Comparative nucleotide sequence analysis of the **glycoprotein** gene of antigenically altered **rabies** viruses
AUTHOR(S): Wunner, W. H.; Smith, C. L.; Lafon, M.; Ideler, J.; Wiktor, T. J.
CORPORATE SOURCE: Wistar Inst. Anat. Biol., Philadelphia, PA, 19104, USA
SOURCE: Nonsegmented Negat. Strand Viruses, [Proc. Symp. Mol. Biol. Negat. Strand Viruses] (1984), Meeting Date 1983, 279-84. Editor(s): Bishop, David H. L.; Compans, Richard W. Academic: Orlando, Fla.
CODEN: 52EHAI
DOCUMENT TYPE: Conference
LANGUAGE: English

L17 ANSWER 22 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2005:436097 BIOSIS
DOCUMENT NUMBER: PREV200510220603
TITLE: The human antibody repertoire specific for **rabies** virus **glycoprotein** as selected from immune libraries.
AUTHOR(S): Kramer, R. Arjen; Marissen, Wilfred E.; Goudsmit, Jaap; Visser, Therese J.; der Horst, Marieke Clijers-Van; Bakker, Arjen Q.; de Jong, Maureen; Jongeneelen, Mandy; Thijsse, Sandra; Backus, Harold H. J.; Rice, Amy B.; Weldon, William C.; Rupprecht, Charles E.; Dietzschold, Bernhard; Bakker, Alexander B. H.; de Kruif, John [Reprint Author]
CORPORATE SOURCE: Crucell Holland BV, POB 2048, NL-2301 CA Leiden, Netherlands
j.dekruif@crucell.com

SOURCE: European Journal of Immunology, (JUL 2005) Vol. 35, No. 7, pp. 2131-2145.
CODEN: EJIMAF. ISSN: 0014-2980.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 26 Oct 2005
Last Updated on STN: 26 Oct 2005

L17 ANSWER 23 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2005:399411 BIOSIS
DOCUMENT NUMBER: PREV200510190484
TITLE: Novel human monoclonal antibody combination effectively neutralizing natural **rabies** virus variants and individual in vitro escape mutants.
AUTHOR(S): Bakker, Alexander B. H.; Marissen, Wilfred E.; Kramer, R. Arjen; Rice, Amy B.; Weldon, William C.; Niezgoda, Michael; Hanlon, Cathleen A.; Thijsse, Sandra; Backus, Harold H. J.; de Kruif, John; Dietzschold, Bernhard; Rupprecht, Charles E.; Goudsmit, Jaap [Reprint Author]
CORPORATE SOURCE: Crucell Holland BV, ARchimedesweg 4,POB 2048, NL-2301 CA Leiden, Netherlands
j.goudsmit@crucell.com
SOURCE: Journal of Virology, (JUL 2005) Vol. 79, No. 14, pp. 9062-9068.
CODEN: JOVIAM. ISSN: 0022-538X.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 5 Oct 2005
Last Updated on STN: 5 Oct 2005

L17 ANSWER 24 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2004:239856 BIOSIS
DOCUMENT NUMBER: PREV200400241302
TITLE: Mapping of the low ph-sensitive conformational epitope of **rabies** virus **glycoprotein** recognized by a monoclonal antibody 1-30-44.
AUTHOR(S): Kankanamge, Pushpa Jenette; Irie, Takashi; Mannen, Kazuaki; Tochikura, Tadafumi S.; Kawai, Akihiko [Reprint Author]
CORPORATE SOURCE: Department of Molecular Microbiology, Graduate School of Pharmaceutical Sciences, Kyoto University, Sakyo-ku, Kyoto, Kyoto, 606-8501, Japan
akawai@pharm.kyoto-u.ac.jp
SOURCE: Microbiology and Immunology, (2003) Vol. 47, No. 7, pp. 507-519. print.
ISSN: 0385-5600 (ISSN print).
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 6 May 2004
Last Updated on STN: 6 May 2004

L17 ANSWER 25 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2000:179378 BIOSIS
DOCUMENT NUMBER: PREV200000179378
TITLE: Sequencing and position analysis of the **glycoprotein** gene of four Chinese **rabies** viruses.
AUTHOR(S): Tang Qing [Reprint author]; Yang Wei-song [Reprint author]; Orciari, Lillian A.
CORPORATE SOURCE: Epidemiology and Microbiology Institute of National Academy of Preventive Medicine, Beijing, 102206, China
SOURCE: Virologica Sinica, (March, 2000) Vol. 15, No. 1, pp. 22-33. print.
ISSN: 1003-5125.
DOCUMENT TYPE: Article
LANGUAGE: Chinese
ENTRY DATE: Entered STN: 11 May 2000

Last Updated on STN: 4 Jan 2002

L17 ANSWER 26 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1999:417211 BIOSIS
DOCUMENT NUMBER: PREV199900417211
TITLE: Lyssavirus **glycoproteins** expressing immunologically potent foreign B cell and cytotoxic T lymphocyte epitopes as prototypes for multivalent vaccines.
AUTHOR(S): Desmezieres, Emmanuel; Jacob, Yves; Saron, Marie-Francoise; Delpeyroux, Francis; Tordo, Noel; Perrin, Pierre [Reprint author]
CORPORATE SOURCE: Laboratoire des Lyssavirus, Institut Pasteur, 25, rue du Dr Roux, 75724, Paris Cedex 15, France
SOURCE: Journal of General Virology, (Sept., 1999) Vol. 80, No. 9, pp. 2343-2351. print.
CODEN: JGVIAY. ISSN: 0022-1317.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 18 Oct 1999
Last Updated on STN: 18 Oct 1999

L17 ANSWER 27 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1999:60333 BIOSIS
DOCUMENT NUMBER: PREV199900060333
TITLE: Pathogenicity of different **rabies** virus variants inversely correlates with apoptosis and **rabies** virus **glycoprotein** expression in infected primary neuron cultures.
AUTHOR(S): Morimoto, Kinjiro; Hopper, D. Craig; Spitsin, Sergei; Koprowski, Hilary; Dietzschold, Bernhard [Reprint author]
CORPORATE SOURCE: Cent. Neurovirol., Dep. Microbiol. Immunol., Thomas Jefferson Univ., 1020 Locust St., Philadelphia, PA 19107-6799, USA
SOURCE: Journal of Virology, (Jan., 1999) Vol. 73, No. 1, pp. 510-518. print.
CODEN: JOVIAM. ISSN: 0022-538X.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 16 Feb 1999
Last Updated on STN: 16 Feb 1999

L17 ANSWER 28 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1999:56699 BIOSIS
DOCUMENT NUMBER: PREV199900056699
TITLE: Low-affinity nerve-growth factor receptor (P75NTR) can serve as a receptor for **rabies** virus.
AUTHOR(S): Tuffereau, Christine [Reprint author]; Benejean, Jacqueline; Blondel, Danielle; Kieffer, Brigitte; Flamand, Ann
CORPORATE SOURCE: Lab. Genet. Virus, CNRS, 91198 Gif sur Yvette Cedex, France
SOURCE: EMBO (European Molecular Biology Organization) Journal, (Dec. 15, 1998) Vol. 17, No. 24, pp. 7250-7259. print.
CODEN: EMJODG. ISSN: 0261-4189.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 16 Feb 1999
Last Updated on STN: 16 Feb 1999

L17 ANSWER 29 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1999:55983 BIOSIS
DOCUMENT NUMBER: PREV199900055983
TITLE: Chimeric lyssavirus **glycoproteins** with increased immunological potential.
AUTHOR(S): Jallet, Corinne; Jacob, Yves; Bahloul, Chokri; Drings, Astrid; Desmezieres, Emmanuel; Tordo, Noel; Perrin, Pierre

[Reprint author]
CORPORATE SOURCE: Lab. Lyssavirus, Inst. Pasteur, 28 rue du Dr. Roux, 75724 Paris Cedex 15, France
SOURCE: Journal of Virology, (Jan., 1999) Vol. 73, No. 1, pp. 225-233. print.
CODEN: JOVIAM. ISSN: 0022-538X.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 16 Feb 1999
Last Updated on STN: 16 Feb 1999

L17 ANSWER 30 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1998:79305 BIOSIS
DOCUMENT NUMBER: PREV199800079305
TITLE: An avirulent mutant of **rabies** virus is unable to infect motoneurons in vivo and in vitro.
AUTHOR(S): Coulon, Patrice; Ternaux, Jean-Pierre; Flamand, Anne; Tuffereau, Christine [Reprint author]
CORPORATE SOURCE: Lab. Genetique Virus, Cent. Natl. Recherche Sci., Ave. Terrasse, 91198 Gif sur Yvette cedex, France
SOURCE: Journal of Virology, (Jan., 1998) Vol. 72, No. 1, pp. 273-278. print.
CODEN: JOVIAM. ISSN: 0022-538X.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 24 Feb 1998
Last Updated on STN: 24 Feb 1998

L17 ANSWER 31 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1995:165375 BIOSIS
DOCUMENT NUMBER: PREV199598179675
TITLE: Mokola virus **glycoprotein** and chimeric proteins can replace **rabies** virus **glycoprotein** in the rescue of infectious defective **rabies** virus particles.
AUTHOR(S): Mebatsion, Teshome; Schnell, Matthias J.; Conzelmann, Karl-Klaus [Reprint author]
CORPORATE SOURCE: Inst. Clinical Virol., Federal Res. Cent. Virus Diseases Animals, Paul-Ehrlich-Strasse 28, D-72076 Tuebingen, Germany
SOURCE: Journal of Virology, (1995) Vol. 69, No. 3, pp. 1444-1451.
CODEN: JOVIAM. ISSN: 0022-538X.
DOCUMENT TYPE: Article
LANGUAGE: English
OTHER SOURCE: Genbank-U17064
ENTRY DATE: Entered STN: 11 Apr 1995
Last Updated on STN: 11 Apr 1995

L17 ANSWER 32 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1992:218225 BIOSIS
DOCUMENT NUMBER: PREV199293118450; BA93:118450
TITLE: RAPID SEQUENCE EVOLUTION OF STREET **RABIES GLYCOPROTEIN** IS RELATED TO THE HIGHLY HETEROGENEOUS NATURE OF THE VIRAL POPULATION.
AUTHOR(S): BENMANSOUR A [Reprint author]; BRAHIMI M; TUFFEREAU C; COULON P; LAFAY F; FLAMAND A
CORPORATE SOURCE: LABORATOIRE DE VIROLOGIE ET IMUNOLOGIE MOLECULAIRES, INSTITUT NATIONAL DE LA RECHERCHE AGRONOMIQUE, F-78350 JOUY-EN-JOSAS CEDEX, FRANCE
SOURCE: Virology, (1992) Vol. 187, No. 1, pp. 33-45.
CODEN: VIRLAX. ISSN: 0042-6822.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
OTHER SOURCE: GENBANK-M81058; GENBANK-M81059; GENBANK-M81060
ENTRY DATE: Entered STN: 4 May 1992

Last Updated on STN: 1 Jun 1992

L17 ANSWER 33 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1991:431756 BIOSIS
DOCUMENT NUMBER: PREV199192087921; BA92:87921
TITLE: ANTIGENICITY OF **RABIES** VIRUS **GLYCOPROTEIN**
.
AUTHOR(S): BENMANSOUR A [Reprint author]; LEBLOIS H; COULON P; TUFFEREAU C; GAUDIN Y; FLAMAND A; LAFAY F
CORPORATE SOURCE: LABORATOIRE GENETIQUE VIRUS, CENTRE NATIONAL RECHERCHE SCIENTIFIQUE, 91198 GIF-SUR-YVETTE CEDEX, FR
SOURCE: Journal of Virology, (1991) Vol. 65, No. 8, pp. 4198-4203.
CODEN: JOVIAM. ISSN: 0022-538X.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 26 Sep 1991
Last Updated on STN: 26 Sep 1991

L17 ANSWER 34 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1989:204165 BIOSIS
DOCUMENT NUMBER: PREV198987105069; BA87:105069
TITLE: CHARACTERIZATION OF **RABIES** VIRUS ISOLATED FROM BOVINES IN PARANA BRAZIL BY USING MONOCLONAL ANTIBODIES.
AUTHOR(S): MONTANO J A [Reprint author]; POLACK G W
CORPORATE SOURCE: INST TECNOL PARANA, CAIXA POSTAL 357, 80001 CURITIBA, PR, BRAZIL
SOURCE: Arquivos de Biologia e Tecnologia (Curitiba), (1988) Vol. 31, No. 4, pp. 595-602.
CODEN: ABTTAP. ISSN: 0365-0979.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 20 Apr 1989
Last Updated on STN: 20 Apr 1989

L17 ANSWER 35 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1986:366010 BIOSIS
DOCUMENT NUMBER: PREV198631061284; BR31:61284
TITLE: AVIRULENT MUTANTS OF **RABIES** VIRUS CHANGE IN THE **SITE III** OF THE **GLYCOPROTEIN**.
AUTHOR(S): DIALLO A [Reprint author]
CORPORATE SOURCE: INST D'ELEVAGE MED VET PAYS TROPICAUX, 10 RUE PIERRE CURIE, 94704 MAISONS-ALFORT CEDEX, FR
SOURCE: Annales de Recherches Veterinaires, (1986) Vol. 17, No. 1, pp. 3-6.
CODEN: ARCVBP. ISSN: 0003-4193.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: FRENCH
ENTRY DATE: Entered STN: 12 Sep 1986
Last Updated on STN: 12 Sep 1986

L17 ANSWER 36 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1986:17341 BIOSIS
DOCUMENT NUMBER: PREV198630017341; BR30:17341
TITLE: A SYNTHETIC PEPTIDE CORRESPONDING TO ANTIGENIC **SITE III** OF **RABIES** VIRUS **GLYCOPROTEIN** AS A TOOL TO STUDY THE VIRULENCE OF THE CVS STRAIN.
AUTHOR(S): COULON P [Reprint author]; BLANOT D; VAN HEIJENOORT J; FLAMAND A
CORPORATE SOURCE: LAB GENETIQUE DE VIRUS, CNRS, 91190 GIF SUR YVETTE, FRANCE
SOURCE: Virus Research, (1985) No. SUPPL. 1, pp. 64.
Meeting Info.: 6TH INTERNATIONAL MEETING ON NEGATIVE STRAND VIRUSES, CAMBRIDGE, ENGLAND, SEPT. 15-20, 1985. VIRUS RES.

CODEN: VIREDF. ISSN: 0168-1702.
DOCUMENT TYPE: Conference; (Meeting)
FILE SEGMENT: BR
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 25 Apr 1986
Last Updated on STN: 25 Apr 1986

L17 ANSWER 37 OF 37 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1985:316536 BIOSIS
DOCUMENT NUMBER: PREV198579096532; BA79:96532
TITLE: **RABIES** VIRULENCE EFFECT ON PATHOGENICITY AND SEQUENCE CHARACTERIZATION OF **RABIES** VIRUS MUTATIONS AFFECTING ANTIGENIC **SITE III** OF THE **GLYCOPROTEIN**.
AUTHOR(S): SEIF I [Reprint author]; COULON P; ROLLIN P E; FLAMAND A
CORPORATE SOURCE: LABORATOIRE GENETIQUE VIRUS, CENTRE NATIONAL RECHERCHE SCIENTIFIQUE, 91190 GIF YVETTE
SOURCE: Journal of Virology, (1985) Vol. 53, No. 3, pp. 926-934.
CODEN: JOVIAM. ISSN: 0022-538X.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH